DOCUMENT RESUME

ED 095 156 95 SP 008 335

AUTHOR	Belcher, Leon H.
TITLE	A Competency-Based Teacher Education Development Project. Final Report.
INSTITUTION	Texas Southern Univ., Houston.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C. Office of Research Grants.
BUREAU NO	BR-0-8063
PUB DATE	Feb 74
GRANT	OEG-0-70-4539
NOTE	164p.
EDRS PRICE	MF-$0.75 HC-$7.80 PLUS POSTAGE
DESCRIPTORS	*Evaluation; *Performance Based Teacher Education; Performance Criteria; *Planning; *Program Design

ABSTRACT

This report describes a 1-year project for the initial development and implementation of a competency-based teacher education program. The project was part of a fifth-cycle Teacher Corps program. Project activities were directed toward planning, faculty development, assessment of changes in attitudes and program structures, and facilitation of education models developed under the auspices of the U. S. Office of Education. Procedures included workshops, inservice professional conferences, systems management activities, the development of instructional modules, the assessment of changes in perceptions, and general evaluation of competency-based aspects of the teacher education program. Data from the assessments and evaluation indicated positive changes in perceptions and cognitive development, and use of materials and procedures centered around competency-based criteria. It was found that the complete transition from a traditional to a competency-based program required more than 1 year. (Author)

ED 095156

Final Report

Project Number 0-8063
Grant Number OEG-0-70-4539

BEST COPY AVAILABLE

A COMPETENCY-BASED TEACHER EDUCATION DEVELOPMENT PROJECT

Leon H. Belcher
Texas Southern University
Houston, Texas 77004

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

February 1974

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Research Grants

National Institute of Education

SP008 335
SP008 335

CONTENTS

PAGE

ABSTRACT i

CONTENTS ii

LIST OF TABLES iii

I. INTRODUCTION 1

PROJECT OBJECTIVES

PROJECT ACTIVITIES

II. RESEARCH UTILIZATION IN PROBLEM SOLVING. 5

III. CHANGES IN ATTITUDES AND PERCEPTIONS OF INTERNS. . . . 13

IV. BIBLIOGRAPHY 29

APPENDIXES 30

A. AN IN-SERVICE PROFESSIONAL CONFERENCE ON COMPETENCY-BASED EDUCATION: INSTRUCTIONAL MODULES. 31

B. AN IN-SERVICE PROFESSIONAL CONFERENCE ON TEACHING MODULES AND BEHAVIORAL OBJECTIVES. 41

C. AN IN-SERVICE PROFESSIONAL CONFERENCE ON INDIVIDUALIZED PERFORMANCE-BASED TEACHER EDUCATION. 55

D. AN IN-SERVICE PROFESSIONAL CONFERENCE ON THE SYSTEMS APPROACH TO CURRICULUM DEVELOPMENT 60

E. AN IN-SERVICE PROFESSIONAL CONFERENCE ON SUPERVISING TEACHERS AND TEACHER CORPS INTERNS IN URBAN SETTINGS: A COMPETENCY-BASED APPROACH. 65

F. INSTRUCTIONAL MODULES DEVELOPED BY FACULTY MEMBERS . . 84

G. INSTRUCTIONAL MODULES DEVELOPED BY FIFTH CYCLE TEACHER CORPS INTERNS. 153

LIST OF TABLES

TABLE PAGE

1. Results of Pre-Test and Post-Test Performance for Participants in the Trainer Workshop. 7

2. Results of Pre-Test and Post-Test Performance for Participants in the Second Workshop 7

3. Comparison of Pre-Test and Post-Test Performance Across Groups. 8

4. Evaluation of RUPS Workshop by Teacher Corps Interns and Teachers 9

5. Participants' Evaluation of Workshop Materials and Methods, and of Trainers' Performance. 10

6. Participants' Intent to Use RUPS Materials and/or Methods. 11

7. Participants' Intent to Use RUPS Materials for Training Others. 11

8. Mean Scores on the Cultural Attitude Inventory . . .14

9. Mean Scores on the Teaching Situation Reaction Test.15

10. Mean Ratings of Traditional and Competency-Based Teacher Education. 17

BEST COPY AVAILABLE

I. INTRODUCTION

The idea of competency-based education received a major thrust in the late 1960's as a result of the development of nine teacher training models under the auspices of the United States Office of Education. Each of the models emphasized the development of teacher education programs which would incorporate principles of systems analysis, behavioral learning systems, and other advanced planning techniques. The general goal of the model projects was to produce total designs for programs to prepare teachers for the schools of the present and the future.

A strong interest in the potential of the nine models was reflected in the 1970 National Teacher Corps Guidelines which encouraged participating institutions to explore the applicability of aspects of the models for inclusion in their Teacher Corps programs. In recognition of the fact that the models were products of large universities,[1] a plan was developed jointly by the Research Branch of the Office of Education and the National Teacher Corps to support experimentation with components of the models within the context of smaller teacher education institutions. Texas Southern University (TSU) was one of seven institutions conducting Fifth Cycle Teacher Corps Programs invited to participate in this arrangement. The arrangement provided financial support for planning and developmental study which would be required to begin to specify a program of teacher education around competency-based criteria.

Objectives

The objectives of the Competency-Based Teacher Education Development Project at TSU were listed as follows:

1. To describe the processes involved in developing and implementing a competency-based program.

---

[1] The institutions which developed teacher education models were Columbia University, Florida State University, University of Georgia, University of Massachusetts, Michigan State University, Northwest Regional Educational Laboratory, University of Pittsburgh, Syracuse University, University of Toledo, and the University of Wisconsin.

2. To describe the procedures and processes involved in securing productive participation of teacher educators and local school personnel in planning and experimenting with new teaching methodologies and staffing patterns which may emerge from the competency-based program.

3. To describe and evaluate the transitional processes associated with the change from traditional course structures to the use of instructional modules.

4. To develop a descriptive profile of Teacher Corps interns and document changes in their attitudes and understandings, and in their development of teaching competencies as they progress through the program.

5. To conduct an evaluation of the accomplishments of the project in generating a model competency-based program and derive recommendations for future planning.

Program Activities

During the twelve-month period covered by this report, the special emphasis on competency-based education was reflected in the following activities:

1. Planning - The project required continuous planning during the entire period. During the first month of operation prior to the beginning of major operational activities of the Teacher Corps program, considerable time was spent in structuring developmental and evaluative activities to be initiated during the pre-service phase of the work with staff and with Teacher Corps Interns. The University faculty in general and teacher education group in particular were made aware of the potential possibilities for instructional improvement through a consideration of various aspects of the ten teacher training models presented to them through a prepared summary and later discussed in detail in a faculty meeting. Tentative long-range plans were developed, and immediate plans for the first two weeks of pre-service were refined.

2. Professional Development Conferences and Evaluative Dialogues - A series of staff meetings and University faculty Conferences were held throughout the year and have continued to this date for the purpose of assisting and supporting the work in competency-based education. Among them were the following:

a. A two-day period of conferences and individual consultation by one of the model developers from the University of Toledo.

b. Professional Conference on the development of instructional modules, the details of which are presented in Appendix A.

c. A Professional Conference on teaching models and the writing of behavioral objectives, the details of which are presented in Appendix B.

d. Professional Conference on individualized performanced-based teacher education which is described in Appendix C. It should be noted also that Dr. Blaine P. Parkinson, Director of the Individualized Performanced-Based Program at Weber State College, Ogden, Utah worked with the faculty as well as conducted a class for a six-week summer term during which time he was a Visiting Professor at the University.

e. Professional Conference on the application of systems approach to curriculum improvement. A complete description of this conference appears in Appendix D. The competence of the faculty in applying systems concepts in the development and in the administration of competency-based education was enhanced significantly by this conference. The consultant was Dr. Walt LeBaron of Washington, D. C.

f. The most recent Professional Conference was held on January 11, 1974 and focused upon further refinement of the application of competency-based procedures in facilitating the development of student teachers and Teacher Corps Interns in Urban settings. A descriptive program and the participants' evaluation of this conference are included in Appendix E.

3. Workshops - The workshop approach was used in studying and simulating several of the components of the teacher education models developed under the auspices of the U. S. Office of Education. A detailed report of the Workshop used to train personnel in the program entitled "Research Utilization in Problem Solving" which was developed by the Northwest Regional Educational Laboratory is included in Section II . It should be indicated also that a two-week Workshop featuring the Syracuse Model was conducted by two staff members from that Institution.

4. Development of Instructional Modules - A Continuous activity was the development and refinement of instructional models by Teacher Corps Interns and by professional teacher educators. Sample copies of these modules are included in Appendixes F and G.

5. Assessment and Evaluation Activities - As was the case with planning, assessment, and evaluation activities were continuous throughout the duration of the project. The major workshops and professional conferences conducted included provisions for the participants to evaluate or provide reactions regarding the significance, quality of presentation, and the general applicability of the content presented. A fairly comprehensive descriptive profile of the personality characteristics and attitudes of Teacher Corps Interns was developed to facilitate Interns' understandings of themselves and for use in counseling situations by the professional staff. In this connection, each Intern did a case report of himself based on psychometric data from the California Psychology Inventory, the Minnesota Teacher Attitude Inventory, and the Sixteen Personality Factor Questionnaire. In collaboration with the National Coordinator of Special Fifth Cycle Competency-Based Projects, data were collected regarding Interns' perceptions of competency-education versus traditional education; their attitudes toward low-income, minority persons; and their reactions to selected teaching situations such as classroom management, teacher-pupil relationships and subject matter competence. A detailed account of those perceptions and attitudes is included in Section III.

II. RESEARCH UTILIZATION IN PROBLEM SOLVING

Our plan for the development of a competency-based program involved the acquisition of new understandings by interns and teacher educators. It was recognized that as the repertoire of teaching skills increased, the teacher needed an objective method to determine when and how to apply various teaching strategies in relation to the needs of students. While research and development will usually provide general guidelines for using educational innovations and new products, many of them must be adapted to fit local needs. The teacher, as an on-the-spot professional decision maker, will need to be able to apply a problem solving approach in order to realize for each pupil the full potential of the new developments. This need supported a decision to provide a training program in problem solving for interns, teachers, and administrators.

Description of the Program

The training program entitled "Research Utilization in Problem Solving"(RUPS) which, at the time, was being developed by the Northwest Regional Educational Laboratory was used. The objectives of the RUPS training design were to increase educators' skills for systematically carrying out a five-step method of problem solving as follows: (1) identify the problem, (2) diagnose the problem situation, (3) consider alternative actions, (4) try out a plan of action and (5) adopt the plan. In addition, the thirty-clock-hour program emphasized the development of teamwork skills which participants would need to facilitate the implementation of educational innovations.

The RUPS program consisted of an audiotape presentation of a typical educational problem for the participants to solve in developing their skills, information packets which introduced basic concepts and techniques, and thirteen training units as follows:

Unit 1 - Identifying the Problem
Unit 2 - Using Research about the Classroom
Unit 3 - Diagnosing and Using Field Force Techniques
Unit 4 - Diagnosing Teamwork Relationships
Unit 5 - Data Gathering Skills
Unit 6 - Selecting Tools for Data Collection
Unit 7 - Spotting the Major Results of Data
Unit 8 - Anchored Trainer Ratings
Unit 9 - The Concept of Feedback
Unit 10 - Deriving Implications of Action Alternatives
Unit 11 - Planning for Action
Unit 12 - Small Group Dynamics
Unit 13 - Planning for Action

At the protype stage, the RUPS instructional system had been tested upon 100 teachers in attendance at a convention of the National Association of Classroom Teachers following which it was used to train 2,094 educators in the Northwest area. The results indicated that teachers and administrators who completed the program could immediately use the materials and procedures in carrying out improvement projects of their own and in training others to use the techniques.

Participants

The first thirty-clock-hour RUPS workshop at TSU was devoted to the training of trainers (N = 16) who, by the program design, would train others in a subsequent workshop. The group included the University educators in the Teacher Corps Program, team leaders from five local school districts and other teacher educators from the departments of Elementary and Secondary Education including Departmental Chairmen. The second workshop conducted by personnel trained in the previous workshop was intended for Teacher Corps Interns (N = 11) and professional educators associated with two other federally supported programs in progress on the TSU campus as well as other teacher educators and local school personnel (N = 23). The federally supported programs were the Trainers of Teacher Trainers (TTT) and the Basic Studies Program in the Language Arts.

Performance Test Results of the First Workshop

An analysis of the performance test results of the participants in the "Trainer Workshop" is presented in Table 1. The pre-test mean score was 15.12 (34 possible) for the 16 participants in this group. Their mean score was slightly higher than the mean pre-test score of 14.31 reported for five other RUPS workshops conducted in the Northwest region. Upon completing the workshop, the post-test mean score increased to 25.06 which compares favorably with the mean post-test score of 25.42 for the five aforementioned workshops. The mean gain score of 9.88 is slightly less than the average gain score of 10.94 reported for other workshops and is probably due to the higher pre-test mean score of the TSU participants.

Further analyses showed that all of the participants performed below the 70 per cent correct criterion on the pre-test. The impact of the training is reflected in the post-test results which showed that 56 per cent of them performed at or above the 70 per cent criterion level, including 44 per cent at or above the 80 per cent level.

Table 1

Results of Pre-Test and Post-Test Performance for Participants in the Trainer Workshop (N = 16)

Test	Number of Correct Responses			
	25 or Less	26 to 30	31 - 34	Mean Score
Pre	100%	-	-	15.12
Post	50%	31%	19%	25.06

On the Force Field Analysis Unit, the test results compared favorably with those reported for other RUPS workshops. The mean score of 8.5 (10 possible) was slightly higher than the norm of other workshops. An item analysis indicated that all of the participants performed at or above the 70 per cent criterion level including 81 per cent at or above the 80 per cent level.

Performance Test Results of the Second Workshop

Faculty personnel who were trained in RUPS techniques during the first workshop served as trainers for participants taking the second workshop. Of the 34 participants, 22 were teachers, 11 were Teacher Corps Interns and one was an administrator. These participants completed the thirteen units of the program during a thirty-clock-hour workshop as did the previous participants.

An analysis of the pre-test and post-test performance test data is presented in Table 2. The pre-test mean score for this group of 34 participants was 15.80 (out of possible 34) with 47 per cent of the items answered correctly. As was the case with the "trainer workshop" group, these participants had a pre-test mean score slightly higher than the mean reported for comparable workshops held in other locations (15.80 versus 14.31) as well as higher than the mean pre-test score for the "trainer workshop" group (15.80 versus 15.12). Upon completing the workshop, the subjects were administered the post-test on which their mean score was found to be 27.70 with 82 per cent of the items correct. Sixty-eight per cent of all participants performed at or above the post-test mean score and 59 per cent of them gave correct responses to 85 per cent or more of the items.

Table 2

Results of Pre-Test and Post-Test Performance for Participants in the Second Workshop

Sub-Group	Test	Number of Correct Responses			
		25 or less	26 - 30	31 - 34	Mean Score
Interns	Pre	100%	-	-	15.31
(N = 11)	Post	18%	45%	36%	26.54
Teachers	Pre	100%	-	-	15.78
(N = 23)	Post	22%	48%	30%	28.86
Composite					27.70

The t tests for dependent pre-test and post-test performance mean scores were highly significant for the Teacher Corps Intern Subgroup (t = 9.86) and for the Teacher Subgroup (t = 15.52). The t test for independent gain score means for the two groups was nonsignificant (t = .0875).

An analysis of the pre-test and post-test scores across groups is presented in Table 3. It will be recalled that the pre-test mean score on the Performance Test was 15.12 for the "trainer workshop" group. Their trainees in the second workshop earned a pre-test mean score of 15.30. Thus the two group started with nearly equivalent performance scores before training. After training, the "trainer workshop" group earned a mean score of 25.06. However, their trainees in the second workshop exceeded this with a mean score of 27.70. This is especially significant considering the demographic factors present in the population comprising the second workshop--Teacher Corps Interns (N = 12) and Teachers (N = 24). Comparison of the pre-test and post-test scores for the two populations shows that trainees trained as trainers can train other trainees to perform at or above their own level of cognitive achievement.

Table 3
Comparison of Pre-Test and Post-Test Performance Across Groups*

Group	Test	Number of Correct Responses			Mean Score	Gain Score
		25 or less	26 - 30	31 - 34		
Trainer	Pre	100%	-	-	15.12	
Workshop (N = 16)	Post	50%	31%	19%	25.06	9.94
Interns	Pre	100%	-	-	15.81	
(N = 11)	Post	18%	45%	36%	26.54	10.73
Teacher	Pre	100%	-	-	15.78	
(N = 23)	Post	22%	48%	30%	28.66	12.88

*The t tests for dependent pre-test and post-test performance mean scores were highly significant for the "trainer workshop" group (t = 6.28), for the Teacher Corps Intern group (t = 9.86) and for the Teacher group (t = 15.52). A t test for independent gain score means for the Teacher Corps Intern and Teacher groups in the second workshop was nonsignificant (t = .0875).

Participants' Evaluation of RUPS Workshop

Participants were asked to evaluate the RUPS workshop design, materials and methodology along several dimensions included on the Final Questionnaire. In ranking their workshop experiences on a six-point scale according to their pre-workshop expectations, 79 per cent of the participants (N = 33) ranked it at four or higher, including 48 per cent who ranked it at five or more. In summing up their workshop experiences on a "Not Very Worthwhile---Extremely Worthwhile" six-point scale, 82 per cent of the participants rated their experiences at position four or higher, including 77 per cent who indicated position five or higher. In response to a question which sought to determine whether or not the participants would recommend the RUPS program to like-minded peers, 86 per cent responded in the affirmative at the four or higher level on a six-point scale, including 77 per cent who assigned a high rating of five or six to this item. Table 4 presents the evaluations of the Teacher Corps Interns and the Teachers in terms of means and percentages.

Table 4

Evaluations of RUPS Workshop by Teacher Corps Interns and Teachers

Item	Group	Ratings Low 1 - 3	4	High 5 - 6	Mean
Extent Workshop fulfilled expectations	Interns	20%	20%	60%	4.00
	Teachers	22%	43%	35%	4.17
Extent Workshop worthwhile	Interns	20%	0	80%	4.27
	Teachers	26%	9%	74%	5.04
Recommend Workshop to others	Interns	20%	0	80%	4.90
	Teachers	9%	17%	74%	5.94

Teacher Corps Interns N = 11 Teachers N = 23

As can be seen from Table 4, comparative evaluation data from Teacher Corps Interns and those from Teachers (college teachers, local school teachers, team leaders) are similar. It is noted, however, that Teacher Corps Interns tended to rate various dimensions of the RUPS Workshop as either low or high with relatively few ratings in the middle of the scale. On the other hand, the ratings given by the Teacher group were distributed across the six-point scale and the percentages in the upper levels (5 and 6) of the scale were generally lower than the percentages for the Teacher Corps Interns. However, in terms of cognitive development during the workshop, the Teacher group showed slightly higher gains as indicated by higher post-test mean scores on the Performance Test.

Another dimension of the Final Questionnaire sought the participants' evaluation of the content, materials, practice exercises and methods used in the RUPS Workshop. Nine separate six-point scales were used to elicit reactions to such questions as:

Did the workshop speak to important issues?
Did the materials allow for original thinking?
Did the materials maintain your interest?
Was time utilized well during the sessions?

In addition, the participants were asked to rate the performance of the trainers who conducted the workshops. The ratings covered nine different behaviors to be rated on a six-point scale. Table 5 presents a summary of the evaluative data from the 54 item questionnaire which covered the workshop materials and methods, and the performance of the trainers.

Table 5

Participants' Evaluation of Workshop Materials and Methods, and Evaluation of Trainers' Performance

Item	Group	Score Interval Low 1 - 29	 30 - 45	 High 46 - 54	Mean
Evaluation of Workshop Materials and Methods	Interns	18%	27%	55%	42.20
	Teachers	9%	61%	30%	40.65
Evaluation of Trainers' Performance	Interns	0	64%	36%	44.90
	Teachers	5%	52%	43%	43.30

Teacher Corps Interns N = 11 Teachers N = 23

The Teacher Corps Intern group evaluated the materials and methods of the RUPS Workshop at a mean score of 42.20 out of a possible 54 points as compared to a mean score of 40.65 for the Teacher group. Fifty-five per cent of the Interns evaluated the workshop above a score of 45, while 30 per cent of the Teacher group gave it a similar evaluation. The performance of the trainers was evaluated at a mean score of 44.90 (possible 54)by the Teacher Corps Interns and 43.30 by the Teacher group. Thirty-six per cent of the Interns rated the trainers at a score of 45 or above, while 43 per cent of the Teacher group evaluated them similarly.

One of the most important considerations in evaluating the potential of an innovative or new method is its application in current or future practices of its consumers. One of the questions in the Final Questionnaire was designed to have participants indicate the extent to which they expected to use the RUPS problem solving methods in their current or future work endeavors. In response, 83 per cent of all participants stated that they planned to use the ideas, skills and/or materials presented in the RUPS Workshops as an integral part of their work. As for the responses of the two groups separately, 100 per cent of the teachers and 70 per cent of the Interns indicated that they planned to use the materials in their work as teachers. Table 6 presents comparative data for the Teacher Corps Intern group and the Teacher group with respect to intention to use the RUPS methods and/or materials in their work situations.

Table 6

Participants' Intent to use RUPS Materials and/or Methods

Group	No.	Will Use	Will Not Use	Uncertain
Interns	10	70%	20%	10%
Teachers	23	100%	-	-

Although the TSU participants were not being trained for the specific purpose of learning how to train others to use RUPS materials and methods, 63 per cent indicated that they expected to use the workshop materials to train other professional at some future date. Such a high percentage might be expected in view of the fact that the Teacher group included project directors, coordinators and college professors. Table 7 presents comparative data for Teacher Corps Interns and the Teacher group regarding their intention to use RUPS Materials and Methods to train others.

Table 7

Participants' Intent to Use RUPS Materials for Training Others

Group	No.	Will Use	Will Not Use	Uncertain
Interns	10	60%	40%	-
Teachers	23	65%	26%	9%

Summary and Conclusions

The program, Research Utilization in Problem Solving, was conducted for the purpose of developing and/or sharpening the problem solving skills of teacher educators, Teacher Corps Interns and other professionals associated with teacher training projects. The program was presented through two workshops: the first was used for the training of trainers who conducted the second workshop for other trainees. The program design included pre-test and post-test measures which made it possible to verify the significant variables of the training program.

Analysis of the results indicated that the program was effective in accomplishing immediate objectives. An interesting finding was that trainees trained in one thirty-clock-hour workshop successfully trained other trainees to perform at or above their own level of cognitive development. The overall results indicated that the participants experienced substantive cognitive gains and demonstarted a high level of competence in applying force field analysis procedure to real problem situations reported as a follow-up of the effects of workshop experience.

The participants' evaluation of the RUPS Workshop indicated a high level of satisfaction with the overall workshop design and the RUPS Methodology in general. All of them held high expectations regarding the applicability of the program experiences in actual work situations. A substantial number of the participants indicated that they expected to use the RUPS materials and methods to train other professionals.

Currently, those professors teaching courses in educational research to graduate students and one professor who teaches a psychology course designed specifically for undergraduate students in academic difficulty have integrated the force field analysis procedure into the instructional design of those courses. Team leader who are responsible for supervising the activities of Teacher Corps Interns on the field report that the procedures have continued to be useful as an approach for resolving problems encountered in training Interns to teach.

III. CHANGES IN THE ATTITUDES AND PERCEPTIONS OF INTERNS

One of the objectives of the TSU Competency-Based Project was to study changes in the attitudes, perceptions, and understanding of Teacher Corps Interns as they progressed through the program. In collaboration with Dr. Wilford Weber, the National Coordinator of Special Fifth Cycle Competency-Based Projects, a battery of tests and inventories was assembled and administered to the interns at specified points during the year.

The battery of instruments included the Cultural Attitude Inventory (CAI), the Teacher Situation Reaction Test (TSRT) and a Competency-Based Program Rating Scale-Questionnaire. The CAI instrument was a modified version of Likert-type attitude scale developed by Dorothy J. Skeel at Pennsylvania State University in 1965. It had been used extensively by the Cooperative Urban Teacher Education Program of the Mid-continent Regional Educational Laboratory. Skeel's scale of 50 items was increased to 133 items and, following it's first administration, reduced to 40 items through a process of item analysis. The data presented in the present study were based on the 40 item version of the CAI. The TRST was developed by J. K. Duncan and J. B. Hough at Ohio State University in 1966 and later revised by the Mid-continent Laboratory. Studies reported by the authors and other researchers suggest that the TRST contributed to the prediction of teacher performance as it related to subject matter competence, teacher-pupil relationship, classroom management, and human relations skills. The Competency-Based Rating Scale was developed at Syracuse University by Dr. Wilford Weber.

Results

The CAI was administered to the TSU interns (N = 32) at the beginning and at the end of the preservice phase, and at the end of the inservice phase of the first year of the Teacher Corps Program. Interns were asked to indicate "strongly agree", "agree", "undecided", "disagree", or "strongly disagree", to each of the 40 statements included on the CAI. The items were scored by assigning a value of 5 for the keyed answer, a value of 4 for the next answer closest to the keyed answer and so on. Therefore, scores could range from 40 (a score of 1 for each of the 40 items) to 200 (a score of 5 for each item). High scores indicated a positive attitude toward low-income minority persons while low scores suggested a negative attitude.

Table 8 presents the mean scores for each of the testing sessions. The data for the total group indicated that the scores changed from a mean of 153.75 at the beginning of the preservice phase to 165.28 at the end of the first year. The mean gain of 11.53 compares favorably with gain scores for six other Teacher

Corps programs conducted in other institutions that year. As can be seen from Table 8, sets of pre-test and post-test scores were available for only 12 of the interns although the number of interns who participated in each of the testing sessions ranged from 18 to 32. The mean gain score of 17.92 between the beginning and the end of the first year for these 12 interns exceeded that of other comparable Teacher Corps groups. While no parametric test of significance was performed, the data for the 12 interns consistently indicated that their attitudes toward low-income minority persons were more positive at the end of the year than they were at the beginning of the year.

Table 8
Mean Scores on the Cultural Attitude Inventory for All Interns Present on a Given Date and For Interns Present for Each of the Testing Sessions

Group	Time of Test	No	Mean	Mean Gain (12 Months)
All Interns Present	Pre-Preservice	32	153.75	
	Pre-Inservice	32	169.84	
	Post-Inservice	18	165.28	11.53
Interns Present on Each Date	Pre-Preservice	12	156.25	
	Pre-Inservice	12	170.75	
	Post-Inservice	12	174.17	17.92

The Teacher Situation Reaction Test was a paper and pencil test which presented 44 problem situations to which the student was asked to rank four optional courses of action which could be applied to the situation. The problem situations included such tasks as planning, handling restless students, dealing with pupil-pupil conflicts, and working with shy students. Responses were scored according to the discrepancy between an intern's rankings and the keyed rankings. Thus, total agreement between the key and an intern's ranking of the options for an item resulted in a discrepancy score of 0 while total disagreement with the key was scored as 4. Consequently, the range of possible total scores was 0 (total agreement on every item) to 176 (total disagreement on every item). Therefore, the lower the score, the more competent the intern would be said to be with regard to the areas of competence covered on the test.

Table 9 has been included to show the mean scores of the total number of interns present for a given session and separately for those present at each of the three sessions. For each of the subgroups, the scores were more compatible with the keyed options at the end of the year (post-inservice) than they were at the beginning of the year (pre-preservice). For the 13 interns who participated in each of the three assessments, a mean gain score of -9.16 was found which represents considerably more change in a favorable direction with regards to subject matter competence, teacher-pupil relationships, classroom management, and human relations.

Table 9

Teaching Situation Reaction Test Mean Scores for Interns Present At A Given Test Session and for Interns Present at Each of the Three Sessions

Group	Time of Test	No	Mean	Mean Gain (12 Months)
All Interns Present	Pre-Preservice	30	98.47	
	Pre-Inservice	32	92.52	
	Post-Inservice	18	96.72	-1.65
Interns Present on Each Date	Pre-Preservice	13	102.62	
	Pre-Inservice	13	96.38	
	Post-Inservice	13	93.46	-9.16

Results Regarding Comptency-Based Education Versus Traditional Education

On three different occasions interns were asked to register their perceptions regarding their own awareness of and involvement in competency-based education experiences. These assessments came: (1) at the very beginning of the project (preservice), (2) near the end of preservice training (six weeks later), and (3) near the end of the first year of the project (inservice). Immediately prior to the first administration of the Competency-Based Rating Scale-Questionnaire, the interns were presented a brief slide-tape consisting of 30 frames accompanied by a 20-minute audio-tape commentary which compared traditional and competency-based teacher education programs. The audio-tape presentation defined competency-based education as a program in which the competencies to be demonstrated by the student and the criteria to be applied in assessing the competencies of the student are made explicit, and the student is held accountable for meeting these criteria.

The commentary indicated that the criteria used in assessing the competencies of the student are three-fold. First are knowledge criteria used to gauge the student's cognitive development. Second, performance criteria are employed to assess the acquisition of teaching behaviors. As a final process, product criteria are employed to assess the student teacher's effectiveness in the classroom including the growth of pupils he has taught. In contrasting traditional and competency-based education, it was pointed out that the former tends to hold time constant while accepting variations in achievement, while the latter holds achievement constant and permits flexibility in the matter of the amount of time required for learning by individual students. In short, competency-based procedures are self-paced and individualized.

The interns were asked to rate on a nine-point scale (1, very negative to 9, very positive) their feelings regarding:

1. Traditional teacher education programs.
2. Competency-based teacher education programs (included in the first assessment only).
3. Ideal competency-based teacher education programs.
4. Competency-based aspects of their program.
5. Reaction to their total Teacher Corps experiences to date.
6. The extent of their own knowledge regarding the concept of competency-based education.

Table 10 presents a comparison of TSU Teacher Corps Interns' ratings of traditional and competency-based education at three different points in time during the first year of the project. As can be seen, the mean score for those participating in each of the three assessments (N = 14) became progressively less favorable toward traditional teacher education although the reactions were sharper at the end of the first six weeks than at the end of the year. The latter reaction was registered prior to any field experiences other than visits to local schools. Their mean rating for the ideal competency-based program was consistently higher than the mean for the traditional program throughout each of the assessments. This comparison indicated that interns perceived ideal competency-based programs more positively than they did traditional programs. Mean ratings regarding knowledge about competency-based education indicated that interns perceived themselves more knowledgable at the end of the year than they were at the beginning of the inservice phase of the training.

Table 10

Mean Ratings of Traditional and Competency-Based Education for All Interns Present for the Indicated Session and for Interns Present for Each of the Sessions

Item	Time of Rating	No.	Mean	Mean Change (12 Months)
Traditional Program	Pre-preservice	33	3.27	
	Pre-inservice	32	2.25	
	Post-inservice	18	3.67	.40
Ideal Competency Program	Pre-preservice	33	7.70	
	Pre-inservice	32	7.59	
	Post-inservice	18	7.17	-.53
Competency Aspects of Program	Pre-inservice	32	5.47	
	Post-inservice	18	5.39	-.08
Total Prog. Reaction	Pre-inservice	32	5.47	
	Post-inservice	18	4.78	-.69
Competency-Based	Pre-inservice	32	5.28	
	Post-inservice	18	6.11	.83
Traditional Program	Pre-preservice	14	3.71	
	Pre-inservice	14	2.43	
	Post-inservice	14	3.57	-.14
Ideal Competency Program	Pre-preservice	14	7.71	
	Pre-inservice	14	7.93	
	Post-inservice	14	7.36	-.35
Competency Aspects of Program	Pre-inservice	15	5.73	
	Post-inservice	15	5.47	-.26
Total Prog. Reaction	Pre-inservice	15	5.60	
	Post-inservice	15	4.67	-.93
Competency-Based	Pre-inservice	15	5.20	
	Post-inservice	15	6.20	1.00

INTERNS' PERCEPTIONS REGARDING COMPETENCY-BASED TEACHER EDUCATION

One of the objectives of the project was to determine the attitudes and perceptions of Teacher Corps Interns toward competency-based teacher education. In this connection responses elicited from a sample of the interns follow.

Interns' Comments

Three sets of comments are included based upon a format developed by Weber (1971). They were:

1. Excerpts of comments obtained from interns just prior to or during the very beginning of preservice training. Comments were made in response to the following directions: "Using the space below and the back of this sheet, if necessary, please describe your perceptions of the new trends in teacher education and competency-based teacher education. Please be just as frank as possible regarding your feelings."

2. Excerpts of comments obtained from interns after preservice training but prior to inservice training. Comments were made in response to the following directions: "Using the space below and the back of this sheet, if necessary, please describe your feelings about the competency-based aspects of the program you have experienced, and (2) your feelings about the program as a whole in light of your expectations prior to becoming an intern."

3. Excerpts of comments obtained from interns very near the end of the first year of inservice training. Comments were made in response to the following directions: "Using the space provided below and the back of this sheet, if necessary, please describe your feelings about the experiences you have had thus far in Teacher Corps. Please pay particular attention to: (1) your feelings about the competency-based aspects of the program you have experienced, (2) your feelings about the program as a whole in light of your expectations prior to becoming an intern, and (3) particular problem areas you feel to be important."

(1) "I think the new trends are very good. They give the student more time to be independent and less time for dependency. This is very good because the student will be able to learn by his mistakes."

(3) ". . . Competency-based teacher education is more beneficial to the students. It almost guarantees. . .student will learn what he sets out to if he is capable of learning. I knew nothing of this program prior to becoming an intern. The biggest problem. . .is selling the program to a school district that knows very little about it."

(1) "The idea of competency-based teacher education is very good. . . .learning theories and practices of how to teach rather than learning to teach a set body of facts seems much better. Facts are always changing. . . .I wonder whether it might eventually be possible to institute competency-based student education to bring these programs to elementary and high school levels. . . ."

(2) "During preservice it was difficult to determine that we were in a competency-based program completely. . . .Generally these sessions were good. . . .attitude toward the entire program has become more positive since entering the field of work. Actually working with children has been very enlightening as I have experienced concrete situations. . . ."

(1) ". . .children from ghetto areas have many problems. . . teachers must be community-oriented, know parents, . . .The classroom setting must. . .move toward student-center instead of teacher-center."

(3) ". . .Competency-based teacher education is necessary and if it can be presented correctly, will be beneficial. . . . It is ideal for any teaching situation. . . ."

(1) ". . .Competency-based teacher education will work. Having student move at his own pace, . . . is a good step. The student won't feel rushed and his chances of retaining what he needs to know will stay with him longer."

(1) "Competency-based teacher education seems to be the answer to what has been needed for quite some time. The competency-based teacher education plan seems to be workable. . . .The interdisciplinary curricula, personalization of instruction, I think will be beneficial as they will help an intern achieve better expressive and instructional objectives."

(2) "Competency-based education is certainly a need but. . . it is difficult to implement this idea into the traditional educational system. . . . present education system demands that they (children) work with and comply with ideas which are not relevant to the child's immediate environment. Teacher Corps as a whole is what I had expected, the only one thing I have disaproved of. . .has been administrative malfunctions. In some cases. . .

be reached by any means of educational experience so far in their lives."

(3) "My feelings about competency-based education have changed considerably since my experiences in Teacher Corps. I feel the program is a much needed program in most of our schools if students are to feel worthy and want to achieve more."

(1) "I think the competency-based training. . .far outdoes the academic 'training' programs offered in most educational schools of the traditional sort. . . .The reality-based portion satisfies the need people feel to be learning, not memorizing. The difference being experience."

(2) ". . . I don't feel I can answer yet--but I can say generally that we were allowed to believe a great many idealistic doctrines having no relationship to the reality in our particular areas of work. Long on theory and enthusiasm and short on application and functional participation. . . ."

(1) ". . .the competency-based program is a much better program than the traditional teacher's program. If competency-based teacher education program instills all the characteristics that are supposed to be instilled, then not only would it contribute to students but to ourselves as individuals."

(2) "The competency-based teacher education experiences. . . are very positive. My feelings prior to becoming an intern were 100%. . .as an intern . . .towards the program as a whole is 89% . . . .too many 'hang-ups'--interns who do not want to move to a specific locale, transportation, paying rent in two places. . . . interns who do not cooperate. . . .Some instructors are very understanding, others are not. If a group really wants to work together. . .the program is going to be successful."

(1) ". . .sounds good. One thing I really liked. . .was spending most of the time in the classroom. . .being responsible for our own studying sounds scary; it's very different, but sounds challenging."

(2) ". . .I have only observed. . . .have become fully aware of the changes and sincere help that are needed. . . .to let students succeed at their own rate and to be competent on the level they are working is assuring that the students will get something out of that lesson. . . .I looked upon the program as just another traditional teaching job. Now, I want to help change those things that need changing and look for new and better methods of teaching the student how to learn."

(3) "My Teacher Corps experience for the last nine months has been a rewarding one. I have learned how to recognize the feeling of other individuals."

(1) "What has impressed me the most is the avoidance of stocking theory into the student without permitting actual implementation of the theory. This is what I feel is most important. . ..In a competency-based program . . .the person will be able to understand his own ability to implement theory in his work as well as his thoughts. A person will be allowed, in an early stage, to recognize what he can and cannot do and how to change. It will provide a situation in which such change is possible. . ."

(1) "I think the new trend in education discussed would be good for both the student and teacher. . . . a more realistic approach to education rather than the traditional would be better, . . .the way the program is set up a child will also be much more independent in thought and ideas."

(1) "Is competency-based teacher education so new? In the field of educating teachers, perhaps it is a new innovation; however, 'enlightened' teachers have been utilizing this or similar methods. It does appear to be a great improvement over the usual or traditional, college-university teacher education program in that the teacher education student is allowed more freedom and individual initiative, which I believe is good, and also that the training takes place primarily with the end product rather than being an isolated program, separated from school children. Teacher education must continue in this and other noted new trends if beginning teachers as to cope with today's school-age children."

(2) "The competency-based aspect of the program isn't really being applied; assignments are given . . . on a class basis, rather than according to individual intern's needs, abilities, or competencies already attained, and avenues of demonstrating proficiencies aren't available. The program is not structured so as to produce competent teachers--traditional methods (i. e., specified reading assignments along with reports) are utilized--while interns are expected to be innovative!"

(1) "I feel that competency-based teacher education concept will give students more of a chance to develop at one's own rate. The traditional education program places attention on the group as a whole rather than the individual."

(2) "The experiences I have had so far have made me more aware of competency-based education and differences of it and traditional education. I felt the program was designed to train interns to meet the needs of so many students, who have yet to...

people spearheading the program at the elementary school level seem to think that interns are as experienced as they are in the education field."

(3) "Competency-based education has not been a reality. . . .The philosophy . . . is beautiful, but we . . . .have not experienced a suitable competency-based program. . . .I envisioned Teacher Corps to be an organized program but my experiences in Teacher Corps have not been as such. . . ."

(1) "The idea seems to offer a lot more to education. The possibility of on-the-scene training is exciting. . . . to work at one's chosen rate seems promising. . . .will eliminate boredom and perpetrate interest in students."

(1) "Competency-based teacher education is more direct and 'to the point.' . . . puts more emphasis on the output than the input, and . . .it doesn't matter how long it takes to make someone understand and comprehend as long as the goal is achieved. . . .this method is a better way than when students are being taught and expected to comprehend when situation is not relevant to their living conditions."

(2) ". . .situations in the school district where I am could be improved by use of competency-based teacher education program. . ...Competency-based program is the better way to reach these deprived students and normal students, also."

(3) ". . .I am more positive in my thinking. . . .a curriculum that is competency-based is what's needed for low-income and minority groups because each person can be rated individually and not by standards set. . ."

(1) ". . .new trends in teacher education and competency-based teacher education are long overdue. For a number of years, students were expected to perform like robots. . . .carbon copies of their instructors. . . .I believe in individual differences. Competency-based teaching seems to cater more to the individual. . . ."

(2) ". . .experiences have been encouraging. I am in favor of competency-based aspects because they seem more relevant to the needs of the students. . . .I am becoming better oriented toward the goals. . .and now feel relaxed as I understand just what the program is seeking to achieve. I wasn't clear on the aims of the program at first."

(1) ". . .I am optimistic about the innovative trends, the thinking, which guide this type of program. I am most hopeful for

the freedom of expression. . .this allows for the teacher and the pupil. Freedom--with sensitivity and a firm foundation of direction. It will work as long as the individual teacher is truly aware of the needs of the low-income group. . . . I could forsee a danger point in this field--the proper training (immersion and involvement) of the competency-based teacher in the area of home and neighborhood."

(2) ". . .I do not feel that I relate to competency-based education. . .Competency-based is philosophical in its approach, but offers no concrete methodology. It is a philosophy and. . . I agree with its directions. . .But, then we encounter reality and the practical application of competency-based education. . . .beyond its philosophical niceties, --competency-based education is just a redistribution of the same old wares in the traditional classroom. . ."

(1) "Having been taught by traditional-based teachers, I feel almost any innovation will be an improvement. It would seem that competency-based teacher education would be a vast improvement; I know too little as yet to judge."

(2) "My reactions are positive except for lack of support or inconsistent support from program."

(1) ". . .these new trends are a step forward in the production of good, competent teachers. . .seem to allow the student more time to gain more experience in the teaching field. . .seem to focus on closer student-teacher relationships. The competency-based teacher education program allows the student equal time to study, work toward a degree through class work, and gain experience and competency through field work at the school. In essence, the competency-based teacher education program. . .explains itself in that this is a program designed to produce competent teachers through experience gained through working closely with students and having the opportunity to learn and gain experience simultaneously."

(2) ". . .Competency-based education is not only a new facet of education, but it is a theory that should be experimented by all schools. . .allows all students to learn and at their rate of speed. . . .Competency-based education is a definite way to reach the slow student."

(1) ". . .Competency-based program good because it is more concerned with performance output instead of the knowledge criteria. . . .takes the different abilities of each child into consideration and places less emphasis on time. Also, the competency-based program recognizes this communication gap (in the

traditional program) and tries to reduce it and . . .provides the means for it--less lecturing and more discussion."

(2) ". . .I am all for competency-based program. . .it will help the children in the long run. . . ."

(1) ". . .Competency-based teacher education seems to be the answer in that it focuses upon teacher-student relationships and educational experiences. . . .enables more time to be spent with the child in order to determine his own individual needs and abilities. . ."

(2) "There have been very few competency-based aspects applied to the educational curriculum in so far as I have observed. Most teaching is still done on traditional methods."

(1) ". . .Competency-based teacher education is much better. . . .the student-teacher is able to learn (from doing in the community together with the classroom) free from the confines of the often irrelevant multiversity where all too often the mere completion of a set number of credit hours qualifies one to teach children. . . ."

(2) "I am strongly in favor of implementing a competency-based program in every school district in the United States. It is good because it states behaviorally (concretely). . .amount of expertise. . .to be proficient. . . .thing of accountability appeals to me because. . .people must have incentives to do their best."

(3) ". . .very favorable about competency-based teacher education programs. To tell a person what you expect before instruction is the best way to insure that he will be measured properly. Also. . .good to take the person where he is and allow him to do just what he is capable of doing."

(1) "Basically, it sounds like a good program. However, I am still in the dark as to how the program operates on an individual self-pacing program. The faculty-intern interaction is a great idea--this way we'll spend more time than in normal classroom circumstances with the teacher."

(1) "Competency-based education appears to be an attempt to highly structuralize some less recent education trends which were called the 'student-centered' or 'phenomenological' approach to education. From the little I have seen I would say there is too much concern being shown about structure."

(2) "If carried to its ideal format, competency-based education would be a good, but not the best, innovation in

education. When carried out on a practical level I do not as yet see how it is really any different from the traditional lecturing followed by a test system. Prior to becoming an intern I had no real great expectations for this program. My only real criticism is that it has come so short of achieving its fullest potential."

(1) "The new trends are heading in a good direction because they stress interaction between teacher and student, faculty and teacher. How a person performs is a better guide to his actual teaching competency than the amount of time he has spent with his nose in a book."

(2) ". . .Having completed the pre-service training and three weeks inservice, I see the need for a complete revamping of our educational system, and a competency-based program being a very definite part of this. But I also see that competency-cased education is not the only answer."

(1) ". . .Competency-based teacher education allows a very positive approach for improving the learning process of students. . . .permits the child to learn and advance at his own rate of speed. . . .end product will be a more complete mastery of skills which he has learned."

(1) ". . .seems to be on the right track in allowing the achievement to be constant and the time variable. I like this approach very much. . . .Each student would eventually know the satisfaction of accomplishment. . . .The development of self-esteem and satisfaction are linked closely to the ability to do something well. A well adjusted person is one who likes and respects himself. . . .this system would encourage him.

(2) "Competency-based education can be the answer to the minority and disadvantaged child's need for an educational system which is designed to meet their needs. . . .The key will be the teacher-education system and the degree of accountability required. . . . Modular Instruction was defined and I do feel competent with this method of instruction. . . .Program has been one of the most intensive learning experiences of my life. However, the learning has come mainly from consultants and the exposure to an entirely different culture from my own. . . .it is most frustrating to work within a system which teaches about competency-based education but does not teach using competency-based education . . . .However, instructors are trying to discover the needs of the interns, take us from where we are and lead us onward. . . ."

(1) "It is refreshing to me to see the reorganization that is coming. For eighteen years I have been the 'victim' of outdated

learning methods. I don't profess to believe that competency-based education, as it now stands, holds all the answers, but it is certainly a step in the right direction."

(2) ". . .Teacher Corps will be relatively ineffective in the area of creative educational systems, the populace being completely unwilling to cooperate, their concepts. . .having been formulated in the traditional sense."

(1) "I favor any program which will encourage students to explore areas on their own. . .Programs which allow self-pacing and individual work are excellent for many students. . . .My initial response is that this presentation is not drastically different from one other educational trend. . . .I strongly support independent creative work, teaching by competent specialists in a field, and the possibility for a great variety of experience inside the classroom as well as out. It is the curiosity of the teacher as well as his creativity and willingness to give something that will make him successful. If competency-based teaching programs will incorporate all that it claims, it will be a move in a positive direction."

(2) ". . .I see the need for competency-based instruction. Students must be able to enjoy their own development and must be able to appreciate themselves as individuals and there is a way to do this through competency-based education. Initially, I was disappointed in Teacher Corps. I have found that I did benefit from preservice training but have my own ideas in regards to improvements. . . .like to see more consultants, to learn more of resources available to us and to have been better acquainted with older methods we have come into contact or conflict with. . . .am optimistic and hope to help change come about."

(1) ". . .Teacher education intern is to assess the teacher and help form other roads of achievement and apply to examine the overall ability of students through other than traditional criteria. But at the same time have a greater understanding of how the traditional system is working."

(2) "Competency-based program is by all means an advanced method of education. And in my belief is going to be the most in developing new educational advancement in a child's learning ability."

(1) "The new trends in teacher education seel to allow the student a better opportunity to get more out of what he is attempting to learn by allowing him to learn at his own pace."

(2) "My knowledge of competency-based education is somewhat fuzzy; but I am learning. . . .I felt that this program was going

to make an instant great teacher out of me; but I know now it will take time. The program isn't perfect, but I have high hopes that it will improve with time."

(1) "The information that has been given can be summed up in my opinion in one word, great. The students that participate in this program can accomplish so much if the teachers carry out the objectives of the program."

(3) "The competency-based aspects. . . . have been somewhat limited in the school system in which I worked due to the system itself. However, I did try to implement this type of education. My experiences in the University in using competency-based education have been quite disappointing. I feel the teachers. . .were too tradition-oriented and did not try to implement competency-based education."

(1) ". . .I believe this program to be more positive and effective than the traditional type program. It should be very interesting coming in close contact with the student and his family as indicated in the pupil-teacher relationship. This relationship should further aid the teacher in helping the pupil to achieve."

(2) ". . .the idea of a competency-based program is very good but the problem comes when you try to implement such a program to a group of people who have already formularized their ideas about how much a particular child should learn. I still need more actual experience in the program before I can formulate any other reactions."

(3) "I am still sold on this idea of competency-based education."

(1) ". . .new trends in teacher education are long overdue. They allow for a more personal contact with the students. . , .lets a student advance according to his own mental and physical capacities. . . .Although the criteria in the competency-based program are pre-set, they are established according to the student's intellectual, social, emotional, and physical growth. . . .program is set up to help students achieve according to a number of objectives, and an instructional module. . . ."

(2) "The competency-based aspects. . .are very relevant . . . .and inject a more modern approach to learning. . . ."

(3) ". . .program is a good one, if it could be incorporated fully into the traditional school setting. I feel that the program had a good philosophy because it was aimed at helping children

from low-income areas become better self-sufficient citizens. Problem areas include adequately preparing interns for the task on which they are to embark upon, with information on how to handle typical classroom problems."

(2) "My experiences have been enlightening because I had little or no knowledge of the educational process before entering the program. I came into this program with an objective outlook. . . .have been exposed to traditional educating methods and participative methods. . . .I have observed that the students do not relate to the process of learning under the traditional system. I am therefore over-anxious about getting the competency-based aspects of the program underway."

(2) "I have been impressed with the motives of Teacher Corps. . . .should be the basis of a new educational movement, however. . .my knowledge of competency-based innovation is quite limited. But when I do master this, certainly it shall be of value to all concerned. . . .concept of the Teacher Corps should be somehow introduced to every public school in the United States."

(2) ". . .the whole idea is still rather vague to me. The program is very slowly moving in the direction of competency-based education but as of now the experiences I have had in line with my expectations prior to the beginning of intern training are shaping up nicely for this to be a whole new area of new methods."

(2) ". . .program has provided me with the knowledge of how to create a situation where I can teach students on an individual basis. . . .most effective. . . .My feelings . . .haven't changed a great deal. . . .Through one-to-one-contact, the student has a better chance of learning and the teacher has a better chance of recognizing problems of each individual."

(2) "My feelings about the competency-based aspects of the program is very, very applicable, but not practiced in my school. My feelings about the program are rather disappointing."

(2) "I think the competency-based aspects could be meaningful ones, except, I feel there is a lot more involved than what we have yet experienced. I felt that the program would be a good one, but I didn't realize how much of a drain it would be financially and emotionally. . . .Disappointment."

(3) "My feelings, thus far, about my Teacher Corps experiences are that it looks a lot better on paper than in practice."

(3) "The competency-based aspects of our program are not practiced consistently enough to give it a true rating. The problem being not enough freedom to work with the students without traditional method overriding the procedures."

BIBLIOGRAPHY

Dickson, George E. "The University of Toledo Model Program." Elementary Teacher Training Models. Washington: U. S. Government Printing Office, 1969.

Flynn, John M. and Chadwick, Clifton B. "A Study of Teacher Role Behaviors in an Innovative School." Educational Technology. February, 1970, pp. 49-55.

Weber, Wilford. The Competency-Based Teacher Development Projects. Final Report, Project Number 0-0744, Washington: U. S. Department of Health, Education, and Welfare, National Center for Educational Research and Development, 1971.

APPENDIXES

APPENDIX A

AN IN-SERVICE PROFESSIONAL CONFERENCE ON COMPETENCY-BASED EDUCATION: INSTRUCTIONAL MODULES

An

IN-SERVICE PROFESSIONAL CONFERENCE

on

COMPETENCY BASED EDUCATION: INSTRUCTIONAL MODULES

"I THIRST FOR KNOWLEDGE"

At

TEXAS SOUTHERN UNIVERSITY

For the Staff of

TEXAS SOUTHERN UNIVERSITY

*

Presented By

THE TEACHER CORPS
(PETCO)

in cooperation with

THE BASIC STUDIES PROGRAMS
IN LANGUAGE ARTS AND MATHEMATICS

and the

TRAINING TRAINERS OF TEACHERS PROGRAM
(TTT)

on

TUESDAY, JANUARY 12, 1971

CONFERENCE TIMETABLE

TUESDAY, JANUARY 12, 1971

9:00 - 9:30 - Coffee (Foyer, MKL Building)

9:30 - 11:45 - FIRST GENERAL SESSION

Dr. H. H. Hartshorn, Presiding
Vice President - Texas Southern University

GREETINGS . . . . Dr. Robert J. Terry, Dean
College of Arts and Sciences
Texas Southern University

SYMPOSIUM . . . . Project Directors
Hunter O. Brooks, Moderator
Coordinator of TSU History Education Program
American Historical Association

. Dr. W. R. Strong, Director
Basic Studies Program in LANGUAGE ARTS

. Dr. L. L. Clarkson, Director
Basic Studies Program in MATHEMATICS

. Dr. C. A. Berry, Coordinator of Field Activities
Training of Trainers of Teachers (TTT)

. Dr. J. O. Perry, Director
Teacher Corps Program (PETCO)

11:45 - 1:30 - LUNCH - DUTCH
(Note: Lunch has been prepared for you in Bolton Hall. Please also note that tables have been set up by departments to permit further dialogues on the proceedings thus far.)

1:30 - 4:00 - SECOND GENERAL SESSION

Dr. Robert J. Terry, Presiding
Dean, College of Arts and Sciences
Texas Southern University

Introduction of Presenter . . . . Dr. Leon Belcher
Director of Institutional Research
Texas Southern University

PRESENTATION - "Instructional Modules:

"Instructional Modules: Their Development and Use"

Dr. Charles E. Johnson, Director
Educational Models Project
University of Georgia
Professor of Education

QUESTIONS and ANSWERS

REACTIONS . . . .

National Representatives of the Four Programs

- Dr. Mary Jane Smalley, Chief of the TTT
  Trainers of Teacher Trainers
- Dr. Daniel Thompson, Director, Leadership Training Institute
  (TDDS) - Dillard University
- Dr. W. R. Hazard, Member-Leadership Training Institute
  TTT Projects - Northwestern University
- Mr. Ray Mazon, Regional Director
  Teacher Corps

Moving innovative teaching techniques from off the printed page into the classroom is one of the major problems facing teacher training institutions today. We believe that probably the most effective way is to involve the entire staff in work-training sessions in which the new approach is actually used. Thus, this one-day conference on instructional modules, learning modules, and behavior modification. Today's conference will be followed by small group meetings, large group meetings and work sessions. We trust that you will become involved!!!

TO START YOUR THINKING

A. Glossary of Terms

Competency Based Teacher Education
A program in which the competencies to be acquired by the student and the criteria to be applied in assessing the competency of the student are made explicit and the student is held accountable for meeting those criteria. The competencies referred to are those attitudes, skills, and understandings, and behaviors which facilitate the intellectual, social, emotional, and physical growth of students. Therefore, the criteria used in assessing the competency of students are of three kinds:

Knowledge Criteria which are used to assess the cognitive understandings of the student.

Performance Criteria which are used to assess the teaching behavior of students.

Product Criteria which are used to assess the student's ability to teach by examining the achievement of pupils taught by the student.

Instructional Objectives:
Those competencies which specify behaviors (and possibly attitudes, skills, and/or understandings) to be acquired by the student.

Competency Based Curricula:
Programs in which the competencies to be acquired by the student and the criteria to be applied in assessing the competency of the student are made explicit and the student is held responsible.

Systems Analysis Approach:
The rigorous application of systematic techniques in program design and operation.

Field Oriented Curricula:
Programs which are reality oriented with students spending a considerable portion of their time in interaction with children in school settings.

Personalization of Instruction:
Programs which use a series of learning activities intended to facilitate the students' achievement of specific objectives as compared with programs which use a less flexible course structure.

Utilization of Instructional Modules:
Programs which use a series of learning activities intended to facilitate the students' achievement of specific objectives as compared with programs which use a less flexible course structure.

B. Questions for Discussion

In what respects does a competency based program differ from what we are already doing?

How should the competency level be determined and who should determine it?

If a decision is made by professional education to move in the direction of competency based education, to what extent should the other disciplines be involved? How can such involvement be assured?

How might we go about setting up competency levels for the courses offered in our several departments?

To what extent should the community be involved in our movement toward competency based education?

To what extent should elementary and secondary school personnel be involved in our moving toward competency based education?

What is the role, if any, of the systems approach in making decisions relative to competency based education?

ANNOTATED BIBLIOGRAPHY

Gideonse, Hendrik D. "Behavioral Objectives: Continuing the the Dialogue," The Science Teacher. 36:5154 (January, 1969).

Describe the development of behavioral objectives as the generation of criterion measures which will help whether the curriculum development activity has value before it has begun, which will serve as eddective and modifiable guides to the curriculum development process, and which will provide at least minimum standards by which the efficiency and effectiveness of the completed product can be assessed.

Four questions were considered:

1. What should we mean by the phrase "behavioral objectives?
2. What criteria (or whose?) should we employ in our attempt to better the practices, process, materials, and organizational forms by which we carry out instruction and education? Which should we think about before we begin, which should we think about as we proceed, and which should we apply after we have completed an effort? Whose criteria of "better" do we accept?
3. Do we know enough about learning, cognitive development, motivation, and so on to build instructional systems of greater effectiveness than the ones we currently use in our schools?
4. What conclusions, if any, should we draw from the fact that curriculum buildings cost millions of dollars? How should we ask for results? How do we determine accountability? How do we judge whom and what to support?

Hengst, Herbert. "A Question of Accountability," Journal of Teacher Education, XVII, No. 1, 27-33, 1966.

Emphasizes the potential influence of teacher-scholars on millions of individuals, society and history. Such influences raise a serious question regarding professional accountability (willingness and ability to be answerable for claimed competence as a teacher, a scholar and a service agent). Higher Education establishes its accountability through accreditation processes. Systematized and formal approaches to professional accountability of college teachers are at best laissez faire. The arguments for and against the need for a more formalized pattern of accountability are discussed.

Formalized Pattern of Accountability:

1. Should provide opportunities to demonstrate one's competence in the teaching function and in scholarly activities.

2. Should be conducted by representatives of the academic profession whose competence has been established.

3. Must be readily communicable to the nonprofessional public.

4. Should be characterized by standards that deal with entry-level competencies.

5. Should provide for an endorsement of the individual by an official endorsing body.

Popham, W. James and Baker, Eva L. Systematic Instruction. Englewood Cliffs: Prentice-Hall, Inc., 1970.

Proposes a four step goal referenced model for a systematic approach to instruction which focuses on the learner. The four steps (specification of objectives, pre-assessment, instruction, and evaluation) and their interdependencies are explored. The model is then related to the sequencing approaches of Bloom and Gagne, as well as various situations in the educational setting.

Popham, W. James. "The Performance Test: A New Approach to the Assessment of Teaching Proficiency," Journal of Teacher Education, No. 2, 216-222, 1968.

Discusses the dilemmas confronted in attempting to measure teacher effectiveness by way of ratings, checklists, observation schedules and scales, and standardized achievement tests administered to students. Proposes that teacher-competence assessment should be based on the criterion of pupil growth. Discusses several theoretical problems (e. g., validation of performance tests and making operational objectives sufficiently reliable and discriminating to attest real differences in performance) and practical problems (e. g., securing cooperation of schools for tryout purposes and the effect on teacher enthusiasm for teaching when they are given prescribed objectives). Results of an experimental field trial of a performance test (which included resource materials, instructional objectives and pre and post-tests) by three experienced teachers and three inexperienced teachers showed that students under the experienced teachers made significantly higher scores than students under the inexperienced teachers.

Weinstein, Gerald and Fantini, Mario D. *Toward Humanistic Evaluation: A Curriculum of Affect*. New York: Praeger Publishers, 1970.

The "secret" of motivating the child to involve himself in the learning process--whatever his age, socio-economic level, or cultural background--is to deal in some way with the deep underlying feelings, wishes, and fears that stimulate his actions and color his response to the world.

This was the major finding of the Elementary School Teaching Project, and action-research program undertaken by the Ford Foundation's fund for Advancement of Education in an attempt to discover teaching practices that had proved successful with ghetto children. Spurred by this conclusion, the program staff turned its efforts to the development of a "curriculum of affect," a model for teaching based on pupils' concerns and feelings rather than on purely cognitive goals. By adapting this model, described and illustrated in this book, to suit his own competencies and the needs of his students, the teacher can identify his pupils' concerns, use them in teaching standard intellectual content, or deal with them directly, as content in their own right. The model thus embodies an open-ended approach to teaching and learning that engages the child as a whole-hearted participant in the educational process by making that process "relevant" to him in the most profound sense.

IF YOU CARE TO READ!

Allen, W. C. et al. "Performance Criteria for Educational Personnel Development: A State Approach to Standards," *Journal of Teacher Education*, 20:133-35, 1969.

Berman, Mark L. "Educational Innovation from College Down," *Educational Technology*, 9:31-32, January, 1969.

Elam, Stanley. "The Age of Accountability Dawns in Texarkana," *Phi Delta Kappan*, LI, No. 10, 609-14, June, 1970.

Glaser, Robert. "Theory of Evaluation of Instruction: Changes and Trends," *Proceedings of the Symposium on Problems in the Evaluation of Instruction*, Occasional Report No. 13,

Silverman, Robert E. "Theories and Models and Their Utility," *Educational Technology*, 7:1-6, October, 1967.

APPENDIX B

AN IN-SERVICE PROFESSIONAL CONFERENCE ON TEACHING MODULES AND BEHAVIORAL OBJECTIVES

An

IN-SERVICE PROFESSIONAL CONFERENCE

on

TEACHING MODELS

and

BEHAVIORAL OBJECTIVES

" I THIRST FOR KNOWLEDGE "

At The

South Central Branch YMCA

3531 Wheeler Street
Houston, Texas 77004

TEXAS SOUTHERN UNIVERSITY

*

Presented By

TRAINING THE TRAINERS
OF TEACHERS

in cooperation with

THE BASIC STUDIES PROGRAMS

IN LANGUAGE ARTS AND MATHEMATICS

and the

TEACHER CORPS PROJECT
(PETCO)

on

TUESDAY, FEBRUARY 9, 1971

at

7:30 p.m.

Room A - South Central Branch YMCA

3531 Wheeler Street

AGENDA

I. Welcome

II. Rationale for Inservice Program

III. Pretest

IV. Objectives

V. Teaching Models

- *. Behavioral Objectives
- . Entering Behavior
- . Instructional Procedures
- . Instructional Assessment

VI. Techniques in Writing Behavioral Objectives

- . Taxonomy
- . Basic Components
    - (a) Terminal behavior
    - (b) Conditions
    - (c) Criteria

VII. Examples of Behavioral Objectives

VIII. Post-test

IX. Feedback

---

*To be discussed as a major topic

RATIONALE

The frontiers of education are not static; they are vibrant and dynamic. We, the associates of experimental programs, are on the cutting edge of new approaches, developments, and innovations in education. Departmental chairmen are in an excellent position to test the validity and realiability of innovative changes. Therefore, we would like to share with you some of the things that we are doing with our participants in hopes that you will provide a fertile environment for their continuous growth and development.

Moving innovative teaching techniques from off the printed pages into the classroom is one of the major problems facing teacher training institutions today. We believe that probably the most effective way to involve the entire staff is through an orientation of departmental chairmen. Thus, this one-day seesion on teaching models and behavioral objectives. Tonight's session will be followed by small group meetings. We trust that you will become involved. We further hope that you will administer the final acid test to them (teaching models and behavioral objectives) in order to determine their reliability, validity and practicality in active classroom situations.

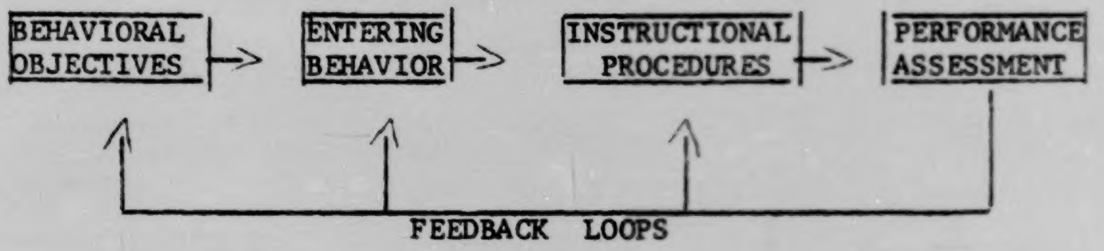
OBJECTIVES

At the termination of the inservice program, supervising teachers will:

1. When given a schematic diagram of Glaser's instructional model successfully fill in the boxes without the use of outside aids with 100% accuracy.
2. List with 100% accuracy the three taxonomic domains as identified by Bloom and Krathwohl.
3. List with 100% accuracy the three components of a behavioral objective as described by Mager.
4. When given examples of behavioral verbs, distinguish those words which are open to many interpretations from those which are not open to many interpretations with 80% accuracy.
5. When given examples of objectives distinguish those that are behavioral from those that are non-behavioral with 80% accuracy.
6. When given examples of behavioral objectives categorically identify them as cognitive, affective or psychomotor with 90% accuracy.
7. Write at least one behavioral objective which includes all three components as described by Mager.

TEACHING MODELS

Historically there have been many teaching models reported in the literature. Among those reported have been the Socratic Model (Jordan, 1963), the Classical-Humanist Model of the Jusuits (Broudy, 1963), and the Personal Development Model (Combs and Snygg, 1959), A Computer-Based Teaching Model (Stolurow and Davis 1965), A Model for School Learning (Carroll, 1963) and A Basic Teaching Model (Glaser 1962). By far the most simplified and the one that is the most flexible and adaptable to almost any teaching style is Glaser's Basic Teaching Model:



Behavioral objectives are explicit statements of instructional objectives which identify the end product of instruction in terms of observable human accomplishments (or performance), which is the outcome of behavior. To determine whether or not a student has learned something, we observe not his behavior but the outcome of his behavior. We often refer to these end products of instruction as terminal performance.

Entering behavior describes the behaviors the student must have acquired before he can acquire particular new terminal behaviors. More simply, entering behavior describes the present status of the student's knowledge and skill in reference to a future status the teacher wants him to attain. Entering behavior is, therefore, where the instruction must always begin. Terminal behavior is where the instruction concludes. We can describe teaching as getting the student from where he is to where we would like him to be--as moving from entering to terminal behavior.

Instructional Procedures is the third component of the basic teaching model. This component simply describes what methods, activities and considerations will be used to teach skills, concepts, principles, and problem solving. There are several factors which will determine the proper selection or design of instructional procedure. Among these are objectives, entering behavior, needs, interests and abilities of the students, etc.

Performance assessment, the fourth component of the basic teaching model, is nothing more than the use of classroom and standardized test procedures to measure the terminal performance of the students. Performance assessment is intimately related to all four components of the basic teaching model. You assess those performances described in the instructional objectives--the terminal performances. The closest relationship, therefore, lies between the first and fourth components, instructional objectives and performance assessment. Performance assessment, however, is also a major source of feedback on the adequacy with which we have assessed the variations in student entering behavior and on the appropriateness of our instructional precedures and materials.

Secondary student teachers, although familiar with other models, are encouraged to follow Glaser's Model because of the ease with which it can be adapted to any teaching method or style. Such flexibility allows the student teacher to follow the initial pattern that has been set in the classroom by the supervising teacher, and at the same time it assures that the fundamental components of teaching are followed in their logical sequence.

TECHNIQUES IN WRITING BEHAVIORAL OBJECTIVES

Taxonomy:

In recent years educators have concerned themselves with the overt behavior of learners in determining learning outcomes. This has been especially useful to teachers who are attempting to state their instructional objectives in behavioral terms; such learning outcomes can best be described by identifying specific changes in student behavior.

One of the most useful guides in identifying and defining instructional objectives is the Taxonomy of Educational Objectives (Bloom, 1956; Krathwohl, 1964). The taxonomy provides a classification of educational objectives that is analogues to the classification scheme used for plants and animals.

The taxanomy is divided into three parts or DOMAINS:

1. THE COGNITIVE DOMAIN: Emphasizes intellectual outcomes.

   A. Knowledge
   B. Comprehension
   C. Application
   D. Analysis
   E. Synthesis
   F. Evaluation

2. THE AFFECTIVE DOMAIN: Emphasizes feelings and emotions.

   A. Receiving
   B. Responding
   C. Valuing
   D. Organization
   E. Characterization by a value or value complex.

3. THE PSYCHOMOTOR DOMAIN: Emphasizes motor skills.

   (Category development is not complete)

The major categories in the cognitive and affective domains above identify types of learning outcomes to consider when writing and defining instructional objectives. It should be noted that the categories for classifying objectives in each domain of the taxonomy are arranged in hierarchical order, from the simplest behavioral outcomes to the most complex. For example, the cognitive domain starts with simple knowledge outcomes and then proceeds through the increasingly complex levels of comprehension, application, analysis, synthesis, and evaluation. Each category is assumed to include the behavior at the lower levels. Thus comprehension includes the behavior at the knowledge level, application includes that at both the knowledge and comprehension levels, and so on. The affective domain follows a similar hierarchical pattern.

The psychomotor domain is concerned with motor skills. Although this domain includes some learning outcomes that are common to most subjects (writing, speaking, laboratory skills), it receives major emphasis in commercial subjects, home economics, industrical education, physical education, art, and music. Performance skills play a prominent role in the instructional objectives in these areas. The taxonomic categories for the psychomotor domain have not been completed at this time and we, therefore, not available for this report.

Writing Behavioral Objectives:

Behavioral objectives are statements which describe what students will be able to do after completing a prescribed unit of instruction. They serve two major functions: (1) they help the instructor design and evaluate his own teaching strategy, (2) they communicate the goals and avenues of approach to his students, to other instructors, and to persons planning the entire sequence of instruction for a student in any given area.

Behavioral objectives have three basic components: (Mager 1962)

1. Terminal behaviors - describes what the learner will be doing when he is demonstrating that he has reached the objective.

   Sample: The student will type at least 80 words in one minute.

2. Conditions -- describe the givens or restrictions under which the learner will be expected to demonstrate his competence.

   Sample: In classroom situations during timed typing demonstrations.

3. Criteria - describe how the learner will be evaluated. They describe at least the lower limits of acceptable performance.

   Sample: With an accuracy of not more than one mistake.

The entire behavioral objective will be:

> "In a classroom situation during timed demonstrations the student will type at least 80 words in one minute with an accuracy of not more than one mistake."

In writing behavioral objectives one should avoid words which are open to a wide range of interpretations in considering the terminal behavior of the learner. Consider the following examples of words:

Words open to many interpretations	Words open to fewer interpretations
To know	To write
To understand	To recite
To really understand	To identify
To appreciate	To solve
To fully appreciate	To construct
To grasp the significance of	To list
To enjoy	To compare
To believe	To contrast
To have faith in	

Main objections to the Behavioral Based approach:

The main objections that most people state when criticizing the Behavioral Objective approach to learning is that the approach can only be applied to simple Cognitive (knowledge) situations, and that when one tries to translate this approach to situations dealing with more complex Cognitive situations as well as Affective (feelings and attitudes), Psychomotor (physical manipulations), and on the job execution that the system is unable to function.

While it is true that simple cognitive situations are easier to obtain and evaluate that does not mean that more complex tasks and those which are affective in nature cannot be incorporated into a Behavioral Objective approach. In fact our final over-all objective is: How well do students perform on the job or during leisure time activities?

Samples of Cognitive, Affective, and Psychomotor behavioral Objectives.

"Cognitive"

Upon completion of the unit, the student will write, in a class setting without the use of aids, a definition of Operant Conditioning which is 100 per cent accurate.

"Affective"

Upon completion of the unit the students will demonstrate their concern for persons in the lower socio-economic groups by voluntarily spending at least two hours per week working in a social service agency.

NOTE: Because of the nature of the Affective Domain, measurement criteria in this area are not usually discussed in advance with the students.

"Psychomotor"

Upon completion of the unit the students will demonstrate their competency by writing ten words on the chalkboard in such a manner that three impartial judges agree that a minimal level of performance has been accomplished.

REFERENCES

"Teaching Models"

Broudy, Harry S. (1963) "Historic Examples of Teaching Models," The Handbook of Research on Teaching, ed. N. L. Gage, pp. 1-43. Chicago: Rand McNally and Company.

Carroll, John B. (1962) "A Model of School Learning," Teachers College Record, 64, pp. 723-33.

Combs, Arthur W. and Donald Snygg (1959), Individual Behavior: A Perceptual Approach to Behavior. New York: Harper and Row, Publishers.

DeCecco, John P. (1968) The Psychology of Learning and Instruction: Educational Psychology, Englewood Cliffs: Prentice-Hall, Inc.

Glaser, Robert (1962) "Psychology and Instructional Technology," In Training Research and Education, ed. R. Glaser, Pittsburg: University of Pittsburg Press, pp. 1-30.

Jordan, James F. (1963) "Socratic Teaching," Harvard Education Review, 33, 96-104.

"Behavioral Objectives"

Armstrong, Robert J., et al (1968) Developing and Writing Behavioral Objectives, Tucson, Arizona, Educational Innovators Press, Inc.

Bloom, Benjamin S., et.al., (1956) Taxonomy of Educational Objectives: Handbook I, Cognitive Domain, New York: Logmons, Green and Company.

Gagne, Robert, (1965), "Educational Objectives and Human Performance: in Krumboltz, Learning and the Educational Process, Chicago: Rand McNally and Company.

Gronlund, Norman E., (1970), Stating Behavioral Objectives for Classroom Instructions, New York: The Macmillan Company.

Haberman, Martin, (1968), "Behavioral Objectives: Bandwagon or Breakthrough," The Journal of Teacher Education, Vol. 19, No. 1, Spring, pp. 91-94.

Krathwohl, David R., et.al. (1964) Taxonomy of Educational Objectives: Handbook II; Affective Domain, New York: David McKay Co.

Kibler, Robert, et.al., (1970) Behavioral Objectives and Instruction, Boston: Allyn and Bacon, Inc.

Mager, R. F., (1962), Preparing Instructional Objectives, Palo Alto: Fearon Publishers.

McAshan, H. H., (1970), Writing Behavioral Objectives: A New Approach, New York: Narper and Row.

Popham, W. J., (1969) "Objectives and Instruction," in AERA Monograph Series on Curriculum Evaluation No. 3, Chicago: Rand McNally.

Popham, W. J. and Caker, E., (1969), Establishing Instructional Goals, Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

APPENDIX C

AN IN-SERVICE PROFESSIONAL CONFERENCE ON INDIVIDUALIZED PERFORMANCE-BASED TEACHER EDUCATION

THE DEPARTMENT OF SECONDARY EDUCATION
In Cooperdtion With
THE TRAINING OF TRAINERS OF TEACHERS
PROJECT
THE TEACHER CORPS
THE BASIC SKILLS PROGRAM IN LANGUAGE
ARTS
THE BASIC SKILLS PROGRAM IN MATHEMATICS
Presents
A TWO DAY INFORMATIONAL CONFERENCE
ON

INDIVIDUALIZED PERFORMANCE-BASED TEACHER EDUCATION PROGRAM (IPT)

Friday and Saturday March 12-13, 1971

TEXAS SOUTHERN UNIVERSITY AUDITORIUM

MARTIN L. KING HUMANITIES BUILDING

"I THIRST FOR KNOWLEDGE"

TEXAS SOUTHERN UNIVERSITY
HOUSTON, TEXAS

MEMORANDUM

To: All Members of the Faculties of various Schools of the University

From: Lamore J. Carter Lamore J. Carter
Dean of Faculties

Date: March 3, 1971

Re: A Two-Day Discussion of Individualized Performance Based Teaching, March 12-13, 1971

The teaching faculty and all other interested persons of the University are urged to attend and participate in two days of talks with Mr. Blaine P. Parkinson, Director, IPT, Weber State College, Ogden, Utah, on Friday and Saturday, March 12-13, 1971. These talks will constitute the third of a series of in-house — in-service education efforts calculated and designed to effectuate much needed and desired changes in teaching objectives, strategies and evaluative techniques at Texas Southern University.

Details of the two-day talks are provided on the attached sheet. For further details, please contact Dr. Robert J. Terry, Dean, College of Arts and Sciences or Dr. Clifton Claye, Head of Secondary Education.

LJC/bjj

Attachment

cc: President G. M. Sawyer
Vice-President H. H. Hartshorn
Members of the Deans' Council
Heads of Special Programs

This is the third in a series of in-house in-service educational programs designed to effectuate change on our campus as it relates to innovative ideas and practices in education. Today's conference is designed specifically to let us take a look-see at what has been done and what is being done in a Teacher Education Program involving some 600 students at Weber State College, Ogden, Utah. This program is completely individualized performanced-based. The Presenter is the Director of the program.

The fourth program in this series will revolve around a Systems Management Approach to Education.

We want you to become involved and we do hope that some meaningful dialogue has already started between and among us.

Thanks for sharing this experience with us.

Friday, March 12, 1971

10:00 A.M. – 12:00 Noon

Individual and Small Group Conferences . . . . HH 301, Materials Center

12:00 – 1:30 P. M. . . . . Lunch

Department of Secondary Education Staff (Dutch)

1:30 – 2:30 . . . . Open

Campus Visitations

2:30 – 3:30 . . . . Meeting

President, Deans, Registrar, and Business Manager

3:30 – 4:30 . . . . Meeting

Teacher Education Council

Saturday, March 13, 1971

8:30 – 9:30 . . . . Coffee
Foyer, Humanities Building

9:30 – 11:00 . . . . First General Session
Launey F. Roberts, Presiding

Greetings . . . . Dr. H. Hadley Hartshorn
Vice President, Texas Southern University

Introduction of Presenter . . . . Sumpter L. Brooks

Presentation I . . . . Mr. Blaine P. Parkinson
Director, Individualized Performanced-Based
Teacher Education (IPT)
Weber State College, Ogden, Utah

Questions and Answers

11:00 – 11:30 . . . . Coffee Break

11:30 – 1:30

Presentation II . . . . Mr. Parkinson

Questions and Answers

Observers – Representatives of
Training of Trainers of Teachers Project
Teacher Corps
Basic Skills Program in Language Arts
Basic Skills Program in Mathematics

Announcements

APPENDIX D

AN IN-SERVICE PROFESSIONAL CONFERENCE ON THE SYSTEMS APPROACH TO CURRICULUM IMPROVEMENT

THE BASIC STUDIES PROGRAM IN MATHEMATICS

in cooperation with

THE TEACHER CORPS
THE BASIC STUDIES PROGRAM IN LANGUAGE ARTS
and
THE TRAINING OF TRAINERS OF TEACHERS PROGRAM

of

TEXAS SOUTHERN UNIVERSITY

Presents

A TWO-DAY IN-SERVICE PROFESSIONAL GROWTH CONFERENCE
on
"SYSTEMS APPROACH TO CURRICULUM IMPROVEMENT"

WEDNESDAY and THURSDAY
APRIL 14 - 15
1971

– AUDITORIUM –

MARTIN LUTHER KING HUMANITIES BUILDING

TEXAS SOUTHERN UNIVERSITY
HOUSTON, TEXAS

This is the fourth and final Professional Growth Conference designed to help us become more aware of the buzz words and phrases which might cause some additional Federal money to flow our way and at the same time to up-date our own knowledge systems about the innovative ideas in education throughout America.

In our efforts to achieve the above goal, we have secretly hoped that you would become involved sufficiently enough to help us in the several projects underway on our campus. We elicit your support and cooperation in our efforts to transfer the innovative ideas in education from the printed page to the on-going instructional process on our campus.

We are eagerly looking forward to another series next school year.

WEDNESDAY, APRIL 14, 1971

8:30 – 9:30 a.m. . . . . Coffee
(Foyer, MLK Building)

9:30 – 10:45 a.m. . . . . First General Session

Dr. L. L. Clarkson, Presiding

Greetings . . . . Dr. Lamore J. Carter
Dean of Faculties
Texas Southern University

Presentation of Conference Consultant . . . . Dr. Leon Belcher
Director, Institutional Research
Texas Southern University

SYSTEMS APPROACH TO CURRICULUM IMPROVEMENT

Presentation I . . . . Dr. Walt LeBarron

10:45 – 11:00 a.m. . . . . Coffee Break

11:00 – 12:00 . . . . Second General Session

Presentation I (Continued) . . . . Dr. Walt LeBarron

Questions and Answers

Announcements

12:00 – 1:15 p.m. . . . . Lunch

1:15 – 2:15 p.m. . . . . Small Group Meeting with Mathematics Staff
Texas Southern University
(Closed)

5:00 – 7:30 p.m. . . . . Third General Session
(SH 157)

Presentation III . . . . Dr. Walt LeBarron

Systems Approach to Curriculum Improvement in Mathematics. (Closed to all except participants in Basic Studies Mathematics Program and interested students.)

THURSDAY, APRIL 15, 1971

8:30 – 9:30 a.m. . . . . Coffee
(Foyer, MLK Building)

9:30 – 10:45 a.m. . . . . Fourth General Session

Dr. Will R. Strong, Presiding

Presentation IV . . . . Dr. Walt LeBarron
The Systems Management Component in Federal Projects

10:45 – 11:00 a.m. . . . . Coffee Break

11:00 – 12:00 . . . . Fifth General Session
(Continuation of Presentation IV)

Questions and Answers

Announcements

12:00 – 1:30 p.m. . . . . Lunch

1:30 – 4:30 p.m. . . . . . Individu[illegible]ferences and Small Group Meetings
(HH 301, Materials Center)

NOTES

APPENDIX E

AN IN-SERVICE PROFESSIONAL CONFERENCE ON SUPERVISING STUDENT TEACHERS AND TEACHER CORPS INTERNS IN URBAN SETTINGS:

A COMPETENCY-BASED APPROACH

FIRST ANNUAL SUPERVISING TEACHER CONFERENCE

Sponsored By
THE DIVISION OF FIELD SERVICES (SCHOOL OF EDUCATION)
AND TEACHER CORPS
TEXAS SOUTHERN UNIVERSITY

Est. 1947

THEME: Supervising Student and Intern Teachers in Urban Settings: A Competency-Based Approach

FRIDAY, JANUARY 11, 1974 - 9:00 A.M. - 2:30 P.M.

HOME ECONOMICS BUILDING
TEXAS SOUTHERN UNIVERSITY

Dr. Granville M. Sawyer, President

Program, Morning 9:00-9:30 a.m. Registration Coffee and Donuts	Home Economics Building Lobby
9:30-11:00 a.m. General Session	Room 115
Presiding	Dr. Sumpter Brooks, Coordinator, Secondary Student Teachers
Prayer	Miss Sebie Harrison, Vice President, Lucille Perry Chapter, TSEA
Music	Texas Southern University Music Department, Ruth Stewart, Director
Welcome from Texas Southern University	Dr. Robert Terry, Vice President for Academic Affairs
Remarks	Dr. Earl W. Rand, Dean, School of Education
Introduction of Speaker	Alvin J. McNeil, Coordinator, Graduate Programs In Education
Keynote Address	Dr. R. Allan Spanjer, Director of Supervised Teaching, Portland State University, Portland, Oregon
Acknowledgements	Dr. L. F. Roberts, Jr., Coordinator, Division of Field Services
Announcements	Dr. Marie Lowery, Coordinator, Elementary Student Teachers

11:15-12:00 a.m.
First Group Interaction Session

REACTION/FEEDBACK MEETINGS

Group 1 - Room 115 - Table #1
Group 2 - Room 115 - Table #2
Group 3 - Room 115 - Table #3
Group 4 - Room 121 - Table #4
Group 5 - Room 121 - Table #5
Group 6 - Room 121 - Table #6
Group 7 - Room 121 - Table #7

12:00 Noon - 1:00 p.m.
Lunch
Home Economics Building
Dining Room

1:00-2:00

Second Group Interaction Session
APPLICATION OF COMPETENCIES/SCENARIOS
Viewing Scenarios and Applying Competencies
I - Groups 1, 2, 3
II - Groups 4, 5, 6, 7

2:00-2:30

Report of Group Reactions[*]

Mrs. Dessie Coleman, University Supervisor of Elementary Student Teachers

Summation

Summation

Dr. R. Allen Spanjer, Director of Supervised Teaching, Portland State University, Portland, Oregon

---

[*] Group Recorders are requested to give written summaries of reactions at the end of group sessions. Detailed reports are to be given to Mrs. Coleman at the end of the day.

Registration Hosts and Hostesses Guides—Lucille Perry Chapter, Texas Student Education Association, Texas Southern University

Coordinator of Records - Mrs. Dessie Coleman, University Supervisor

SUPERVISING TEACHER CONFERENCE PLANNING COMMITTEE

Mrs. Wilma Barnett, University Supervisor, Division of Field Services
Mrs. Dessie Coleman, University Supervisor, Division of Field Services
Mrs. Madelyn Dautrive, Team Leader, Teacher Corps, Dodson Elementary School
Mrs. Patricia Green, Supervising Teacher, Bruce Elementary School
Mr. Arthur Griffin, Supervising Teacher, Grissom Elementary School
Mrs. Celestine Harris, Supervising Teacher, Northwood Middle School
Mrs. Della Hogan, Supervising Teacher, Blackshear Elementary School
Mrs. Billie Johnson, Supervising Teacher, Lockhart Elementary School
Mrs. Virgil Kenney, University Supervisor, Division of Field Services
Dr. Marie Lowery, Coordinator, Elementary Student Teaching, Division of Field Services
Mrs. Mildred Matthews, Supervising Teacher, Yates Senior High School
Mrs. Vaida Nikolic, Supervising Teacher, Sterling Senior High School
Mr. Curtis Roberts, Principal, Lantrip Elementary
Dr. Launey F. Roberts, Jr., Coordinator, Division of Field Services
Mrs. Lowa Williams, Supervising Teacher, McDade Elementary School

GROUP LEADERS AND RECORDERS

Group Leaders School

1. Mrs. Della Hogan, Supervising Teacher, Blackshear Elementary
2. Mrs. Lowa Williams, Supervising Teacher, McDade Elementary
3. Mrs. Justene Joseph, Principal, Dow Elementary
4. Mr. Arthur Griffin, Supervising Teacher, Grissom Elementary
5. Mrs. Billie Jo Johnson Supervising Teacher, Lockhart Elementary
6. Mrs. Mildred Matthews, Supervising Teacher, Yates Senior High
7. Mrs. Madelyn Dautrive, Team Leader, (Teacher Corps.) Dodson Elementary

Group Recorders School

1. Mrs. Patricia Green, Supervising Teacher, Bruce Elementary
2. Miss Sylvia Perez, Team Leader, (Teacher Corps) Lantrip Elementary
3. Mrs. Lettie Gillispie, Supervising Teacher, Neff Elementary
4. Mrs. Vaida Nickolic, Supervising Teacher, Sterling Senior High
5. Miss Celestine Harris, Supervising Teacher, Northwood Middle School
6. Mrs. Geneva Harlan, Supervising Teacher, Dow Elementary
7. Mrs. Ellen Gardner, Team Leader (Teacher Corps) Dodson Elementary

Division of Field Services Secretary, Saundra Davis

THE RATIONALE FOR DEFINING SUPERVISION COMPETENCIES

An exemplary student teaching station provides a learning experience in which the student teacher can develop his own teaching style in a supportive atmosphere accepting of mistakes without threat of failure, gain feedback on his teaching behaviors, and progress toward becoming a self-analytical and self-directed teacher. Such experiences are seldom provided. All too often of helping relationship between supervisor and supervisee is one in which the supervisor attempts, perhaps unknowingly, to change the supervisee in ways congruent with his own perceptions of the teaching situation. When a superiisor tries to change a supervisee or set goals for him, the resulting behavior is usually compliance or identification with the supervisor. Compliance and identification lead not to self-analysis and self-direction on the part of the supervisee but rather to satisfying or pleasing the supervisor, or to imitation and the avoidance of disapproval. In short, the learning process becomes one of learning how to placate the supervisor rather than learning how to solve teaching-learning problems with increased competence.

The rationale behind the Cluster Program defines the helping relationship between supervisor and supervisee as a partnership involving inquiry into a problem the supervisee wishes to solve. The focus is on the problem, and the solution requires increased competence on the part of the supervisee. The emphasis is not on the supervisor solving the problem for the supervisee but rather on the supervisee solving his own problems with the assistance of the supervisor. As the supervisee solves the problems, he gains increased competence with which to meet new problems.

One of the supervisor's tasks is to find out the supervisee's goals andhow he can help the supervisee attain them. This task requires the classroom supervising teacher to have competence in working jointly with a supervisee to plan instructional objectives. The supervisee helps decide the standards of acceptable performance in advance. As a result, his reward will come from accomplishment rather than general praise from the supervisor. In short, the supervisee attempts to meet his own goals, and because he has helped arrive at the criteria as to how these goals are met, the resulting behavior can become his own, independent of the supervisor.

For learning to occur, the supervisee must make a provisional try. That is, he must expose his behavior. He must provide firsthand data for inquiry into the problem he is attempting to solve. For example, if a student teacher needs to develop skill in lesson planning, he begins by writing a lesson plan. If a student teacher wants to learn how to ask certain kinds of questions, he begins by formulating and verbalizing the questions in a simulated or real situation. Contrary to this approach is a student teacher asking for demonstration lessons from a supervisor so he can learn how to perform certain functions. Demonstrations can be useful as a means of showing a technique, but if a student teacher wants to change his own behavior, he will have to try something himself to see the results. In short, the student teacher must make a provisional try toward realizing his goals. The classroom supervising teacher, through delegation of responsibility allows the supervisee freedom to try different behaviors provisionally and to make mistakes without a threat of failure.

After the supervisee provisionally adopts a new behavior, his supervisor provides information about what he did and its effect. The information must be objective, that is, based on actual behavior in the teaching performance. The supervisor does not provide information to the student teacher about his personality or attempt to discuss his attitude. For example, the supervisor does not say, "You're going to need more of a sense of humor. Be more dynamic and interesting. Every teacher has a little ham in him. What you have to do is "ham it up". Instead, the supervisor provides information on the students' actions--on how the actions help or hinder accomplishment of his goals and how employing alternative teaching tecniques can produce different effects. Information about the supervisee's actions may be gathered by taking a verbatim transcript of the lesson, by using audio or video recording, or by some other techniques. By this means the student teacher is provided the opportunity to see his performance as others do instead of through the filter of what he intended to accomplish. Such a technique requires the supervising teacher to competence in recording and analyzing objectives data for purposes of feedback. The supervisor encourages the supervisee to look at the consequances of his teaching behavior as a means for deciding how to alter that behavior. And the supervisee helps decide the kind of information about his teaching behavior he needs to guide his improvement, so ultimately he recognizes that the locus of evaluation, the center of responsibility, lies within himself.

CLASSROOM SUPERVISING TEACHER COMPETENCIES

The rationale for supervision described above served as the focus in identifying competencies needed by classroom supervising teachers. Emphasized in the list of competencies are behaviors essential to building a trust relationship between supervisor and supervisee, providing objective feedback to a supervisee, and performing effectively as a classroom teacher. The following competencies are currently used for the selection and preparation of classroom supervising teachers participating in the Cluster Program:

1. Work jointly with a supervisee to plan instructional objectives that include obserable pupil behavior, conditions for learning, and criteria for acceptable performance. The classroom supervising teacher will be able to demonstrate the following competencies:

    a. Write or verbalize instructional objectives that describe observable pupil behavior and conditions for learning
    b. Enumerate alternative teaching strategies by which objectives can be accomplished

   c. Define performance criteria by which pupils can know they have achieved the objectives
   d. Diagnose a supervisee's plan and, as needed, prescribe behaviors for achieving any of the above competencies

2. Observe a supervisee's teaching performance and record objective data by various means (e.g., verbatim transcript, interaction analysis coding systems, audio and video tapes) on his verbal and nonverbal teaching behaviors and other classroom events. The classroom supervising teacher will be able to demonstrate data-gathering competencies in several of the following ways:

   a. Record classroom talk and related events in written, verbatim transcript form
   b. Record the verbal interaction of a teaching situation using one of several coding schemes (Interaction Analysis, Guided Self-Analysis, etc.)

   c. Employ various devices (audio tapes, video tapes (to record objective feedback on a supervisee's teaching performance
   d. Utilize various informal systems of obeseravaiton of gathering information on learning tasks, participation characteristics, classroom travel of teacher and pupils, content topics, and so on.

3. Analyze the data from classroom observations for patterns of teaching and learning behavior, interaction, questioning strategies, and the like that are related to the instructional objectives and indicative of the supervisee's style. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Identify from recorded data, patterns (recurring) of teaching and learning behaviors
   b. Distinguish patterns of verbal teaching influence and classroom interaction
   c. Select patterns of behavior that are related to the achievement of the instructional goals and the supervisee's classroom effectiveness.
   d. Describe explicitly various dimensions of teaching such as the thought level of questions, techniques of reinforcing pupil behavior including intrinsic reward, and nonverbal communication
   e. Help a supervisee analyze his own performance in relation to above.

4. Plan and conduct conferences on the basis of objective data that enable a supervisee to gain insight into his teaching behavior and formulate provisional alternatives for change. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Plan a conference based on the supervisee's instructional objectives and objective data gathered from the observation
   b. Conduct a conference using objective data as feedback to the supervisee on his performance
   c. Help supervisee identify and adapt alternative teaching behaviors that can lead to improved performance.

5. Demonstrate skill in establishing effective communication with pupils, colleagues, and supervisees by performing various interpersonal skills. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Paraphrase the verbal comments of another person to demonstrate understanding
   b. Check out verbally another person's perceptions about a situation
   c. Describe behavior without making accusations or imputting motives
   d. Describe own feelings directly by naming or identifying them specifically

   e. Respond to others in a freeing manner, allowing them to make choices and be self-regulating
   f. Help a supervisee develop these same skills.

6. Establish a trust relationship with a supervisee by conveying intentions to help and exhibiting competence as a helper. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Behave consistently and predictably in his relationships with others
   b. Delegate responsibility to a supervisee allowing him freedom to try different behaviors provisionally and to make mistakes without a threat failure.
   c. Utilize freeing responses such as attentive listening, paraphrasing perception checks, describing behavior, reporting information, and supplying alternatives.

7. Utilize recent educational developments and trends in teaching and understanding the structure and inquiry procedures of the subjects he teaches. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Organize his knowledge of the subject in an effective structure,based on an understanding of the structure of the subject as a whole.
   b. Relate this knowledge of subject matter to the present experiences of pupils
   c. Be a reliable source of information and a competent guide to other sources of information for pupils and student teachers as they want to inquire into the subject.

   d. Employ a variety of methods and inquiry procedures appropriate for teaching his subject
   e. Make use of recent educational developments, new materials and equipment, and modern trends in teaching his subject
   f. Manage classroom routine, pupil conduct, and learning behavior
   g. Recognize his own content deficiencies and take steps to remedy them

8. Make provisions in planning and teaching for individual differences among learners and set expectations and tasks accordingly. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Include in lesson planning varying approaches to the content, the sequencing of learning activities, the levels of questions asked, and the examples used which correspond to ability levels, differences in learning styles, self-perceptions, and diverse experiences of pupils
   b. Individualize assignments and projects in the classroom so that students are working on more than one level on a given instructional task or concept.
   c. Delegate responsibility for learning to pupils and provide for self-initiated learning
   d. In leading small and large group discussions, demonstrate sensitivity to individual differences among pupils by rephrasing questions when appropriate and using a range of examples when illustrating concepts.
   e. Help a supervisee to begin developing these same competencies

9. Specify and measure behavioral change in students as an important criterion upon which to evaluate teaching performance. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Collect data relative to expected pupil outcomes
   b. Apply data in evaluating original instructional objectives
   c. Reformulate objectives in light of evaluation
   d. Help a supervisee to begin developing these same competencies

10. Employ questioning strategies that result in pupil thinking at varying levels. The classroom supervising teacher will be able to demonstrate the following competencies:

   a. Plan questioning strategies for classroom use that results in pupil thinking on a range of levels, for example, from memory to translation to application to higher levels of thinking
   b. Employ planned questioning strategies in the classroom using student response as a guide

c. Help a supervisee perform these same functions.

Credit:

Spanjer, R. Allan
Teacher Preparation: Supervision and Performance
(Washington, D.C.: Association of Teacher Educators, 1972) pp. 2-7.

FEEDBACK SCENARIOS

Reaction Sheet (for use in 2nd Small Group Session)

Scenario No. 1

1. ____________________

____

____

2. ____________________

____

____

3. ____________________

____

____

Scenario No. 2

1. ____________________

____

____

2. ____________________

____

____

3. ____________________

____

____

Scenario No. 3

1. ____________________

____

____

2. ____

____

____

3. ____

____

____

4. ____

____

____

Scenario No. 4

1. ____

____

____

2. ____

____

____

3. ____

____

____

NOTES

TEXAS SOUTHERN UNIVERSITY
SCHOOL OF EDUCATION
DIVISION OF FIELD SERVICES

SCORE-FORM FOR CONFERENCE EVALUATION

The objective of this conference is to help identify and refine those competencies which will assist in the continuous and preparation of effective and concerned supervising teachers.

Will you assist us in assessing this conference, in light of the above objective, by answering the following questions frankly and thoughtfully? Please use the space at the end for any comments which you might like to make. Please use an X in giving your responses.

	Excellent	Adequate	Incomplete	Unsatisfactory
1. Did the guest consultant address himself to his assigned topic?	___	___	___	___
2. Did the small group sessions contribute to the conference objective?	___	___	___	___
3. What is your evaluation of the hours set aside for the conference?	___	___	___	___
4. Were facilities adequate?	___	___	___	___
5. Were any of your individual needs met by this conference in term of your role in teacher education and preparation?	___	___	___	___

6. Comments: ____

____

____

____

____

TEXAS SOUTHERN UNIVERSITY
SCHOOL OF EDUCATION
DIVISION OF FIELD SERVICES

AN ANALYSIS OF THE EVALUATION OF PARTICIPANTS IN THE FIRST ANNUAL SUPERVISING TEACHERS' CONFERENCE

An Analysis of the Evaluation of Participants in the First Annual Supervising Teachers' Conference

By Virgil C. Kenney

At the close of the First Annual Supervising Teachers' Conference held at 9:30 a. m., January 11, 1974 in the Home Economics Building at Texas Southern University, the participants were given sheets to evaluate the Conference.

Evaluation sheets were returned by 60 or 75 per cent of the 81 persons who signed in at this meeting.

The majority of the participants rated the entire conference excellent for each of the five items.

Seventy-four (74) per cent of the participants felt that the guest consultant did an excellent job on the topic assigned to him. Only twenty-three per cent rated him in the second highest category of adequate, and 3 per cent did not respond to Item One.

It is interesting to note that the participants found the small group sessions beneficial by their rating of excellent by 77 per cent of them.

It was no surprise that the new facilities of the Home Economics Building which housed the Conference received an excellent rating by 92 per cent of the participants who returned the questionnaires.

The conference met the individual needs of participants and provided insights that will be useful in teacher education as indicated by a report of excellent by 75 per cent of the group.

Table 1

em	Excel.	Adequ.	Incomp.	Unsatis.	No Response
Did the guest nsultant address mself to the signed topic?	74%	23%	0	0	3%
Did the small oup sessions con- ibute to the con- rence objectives?	77%	23%	0	0	0
What is your aluation of the urs set aside for e conference?	83%	15%	0	2%	0
Were facilities equate?	92%	8%	0	0	0
Were any of your dividual goals met this conference in rms of your role in acher education and eparation?	75%	23%	0	0	2%

= 60

The participants were not asked to sign their names on the Evaluation Sheets. For this reason the no response to some of the items could have come from participants who were not Supervising teachers.

Some individual comments from the sheets will follow:

" I wish the conference could have been held a year or two earlier then it would have been more beneficial to me."

"This has been the most informative session I have attended while working with student teachers. Really great! His information (Dr. Spanjer) gave me some relevant ideas to use".

"I enjoyed the conference and I am sure the cupervision competencies will be helpful."

"I thoroughly enjoyed this workshop. It was very educational and do hope they will continue throughout the future. Very enlightening."

"Today was very well planned and most helpful."

"The conference was very worthwhile. I would like very much to see this continued as an annual affair."

"This was a very helpful conference. It should be of benefit to the supervising teachers who attended. I am happy to have been invited."

"Dr. Spanjer's address provided an excellent new slant on some basic and very necessary facts relevant to the student teaching experience. His remakrs gave me an excellent guide through which to evaluate my previous performance and on which to base my future performance goals and objectives. The time, for a change, was well spent and informative."

"I have enjoyed the entire program. I felt that it will make me more aware of my job as a supervisor. Everything has been excellent."

"Since it was a regular classroom day and I did not have a substitute teacher, I would have preferred coming on a Saturday."

"We need this kind of conference in particular or related areas for effective use of the time allotted for Student teaching periods, particularly where the student teacher is doing "all levels". Enjoyed this conference."

"The workshop was very interesting and informative."

"Well planned! Very constructive and informative!"

"The conference was thought provoking and should be helpful to the supervising teacher for self-evaluation."

"Very informative."

"In the words of my First Graders, "Let's do it again."

"This kind of conference should be held with student teachers present."

"Continue! Rewarding! Thanks for inviting me!"

"This is a very good beginning!' Please try to have more Workshops of this kind."

"I feel that they Keynote Speakers has much to offer and it was unfortunate that he could not participate more with the small group sessions."

"The conference was very well planned and organized. Everyone was involved. Also the time schedule was excellent. It was heartening to see a schedule so closely adhered to."

"The people at Texas Southern University were extremely helpful and congenial."

"I particularly enjoyed the scenarios and the practical aspects of supervising a student teacher. Usually Workshops are all theory with little practical application."

APPENDIX F

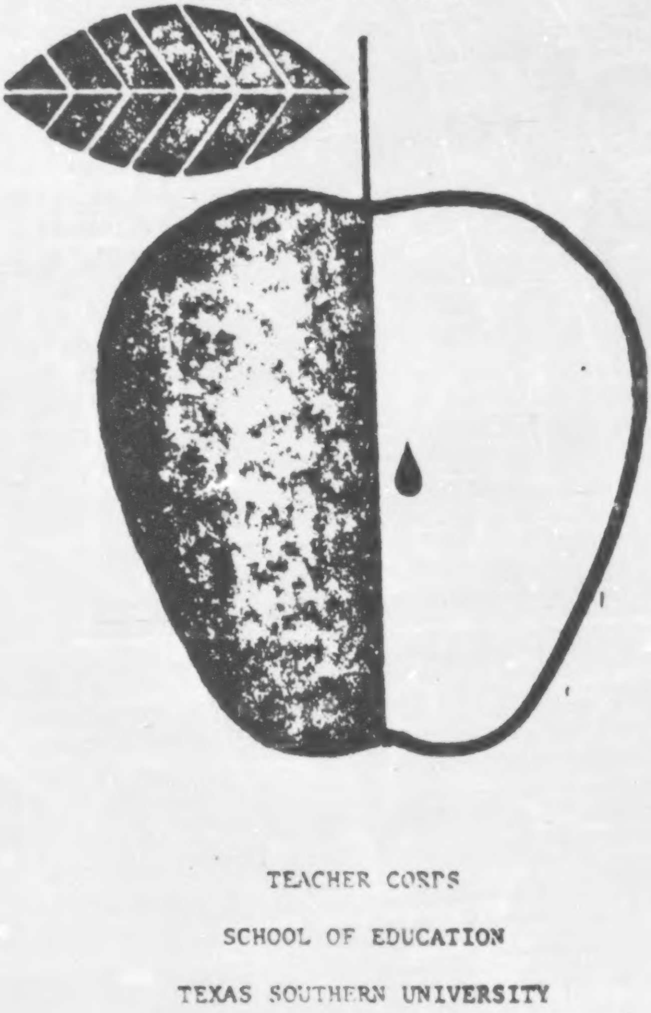
INSTRUCTIONAL MODULES DEVELOPED BY FACULTY MEMBERS

TMM-305.04-TSU
RENCE SYSTEM

TEST DEVELOPMENT

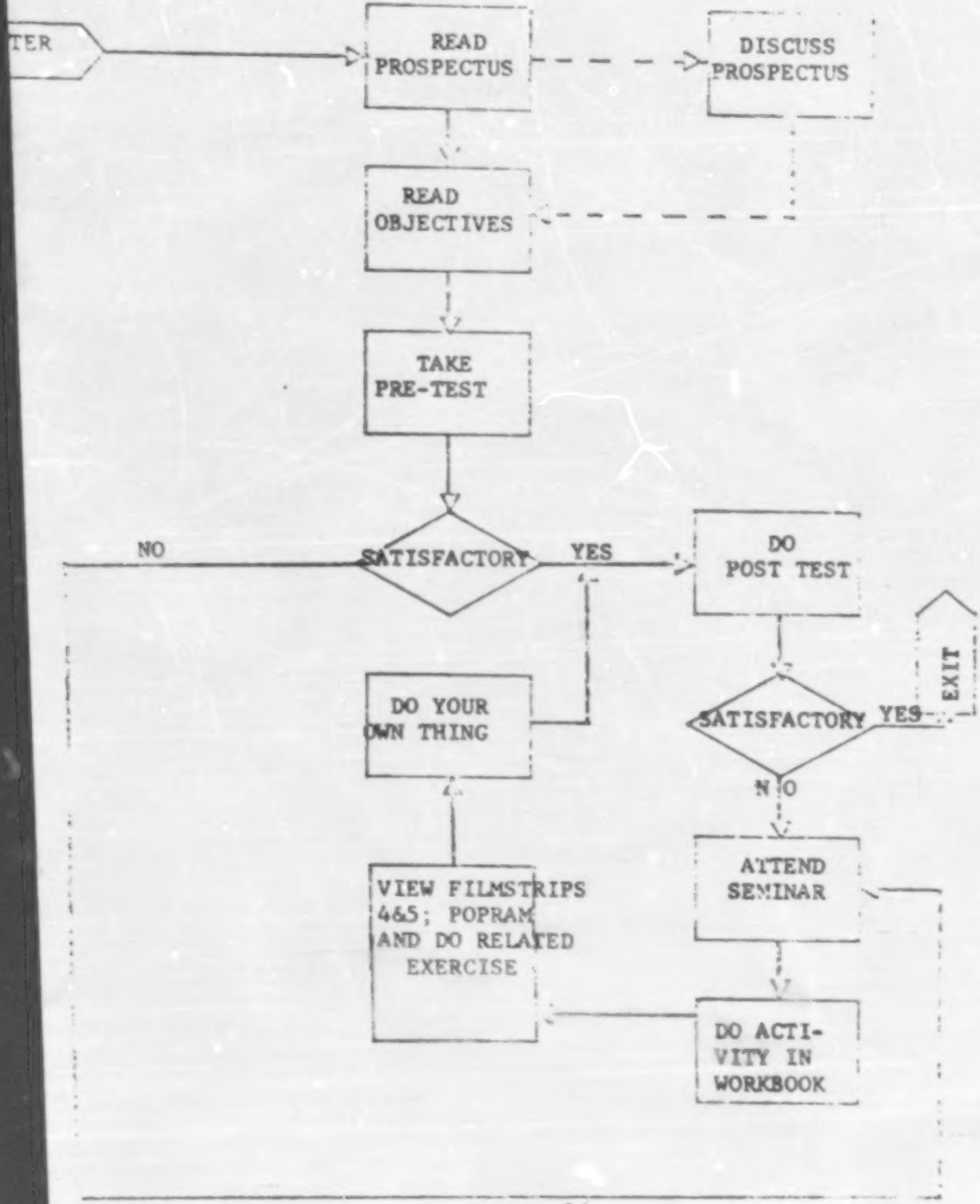
BY

SUMPTER L. BROOKS



TEACHER CORPS
SCHOOL OF EDUCATION
TEXAS SOUTHERN UNIVERSITY
HOUSTON, TEXAS 77004

TEST DEVELOPMENT


TER
READ PROSPECTUS
DISCUSS PROSPECTUS
READ OBJECTIVES
TAKE PRE-TEST
NO
SATISFACTORY
YES
DO POST TEST
DO YOUR OWN THING
EXIT
SATISFACTORY
YES
NO
VIEW FILMSTRIPS 4&5; POPRAM AND DO RELATED EXERCISE
ATTEND SEMINAR
DO ACTIVITY IN WORKBOOK

PROSPECTUS

Any good teacher needs to know how to develop measuring instruments which will adequately assess what goes on in his classroom. A good test has several major purposes:

1. It assesses student achievement,
2. It assesses teacher performance,
3. It provides a direct index of teacher ability,
4. It assesses the effectiveness of teaching strategies, and
5. It provides feedback on the appropriateness of instructional objectives.

This Module is designed to help you gain skill in developing classroom tests which are reliable, valid, usable and discriminative. We hope you will find the activities interesting. There are two prerequisites to this Module. They are:

1. Successful completion of the Introductory Module, ,"The Systemic Approach to Designing Instructions (TMM-301.01-TSU), and
2. Successful Completion of the Module on "Writing Behavioral Objectives" (TMM-301.02-TSU).

BEHAVIORAL OBJECTIVES

OBJECTIVES

When you finish this Module you will be able to:

1. Perform a task analysis on objectives which you have generated for your Learning Kit.
2. Determine the prerequisite behavior of learners.
3. Determine enabling tasks of learners.
4. Define and/or discuss the difference between entry, pre-tests and post-tests.
5. Develop relevant test questions which measure terminal behavior.
6. Develop subject outlines for your reference in developing tests.
7. Develop specification tables for your own reference in developing tests.

FRAME 1

GO TO THE NEXT PAGE.

NOTE: If you can meet the criteria for the Pre-Test, go directly to the Post-test. You need not do the activities in this Module.

1. List and briefly define six important steps in performing task analyses (criteria = 100%)

   A.

   B.

   C.

   D.

   E.

   F.

2. Define the following terms: (criteria = 100%)

   A. Prerequisite tasks -

   B. Enabling tasks -

   C. Entry test -

   D. Pre-test -

   E. Post-test -

   F. Specification tables -

   G. Equivalent practice -

   H. Appropriate practice -

3. Write one behavioral objective and perform a task analysis on it. (criteria = subjective teacher judgment)

FRAME 2

STOP! DO NOT GO TO THE NEXT PAGE.

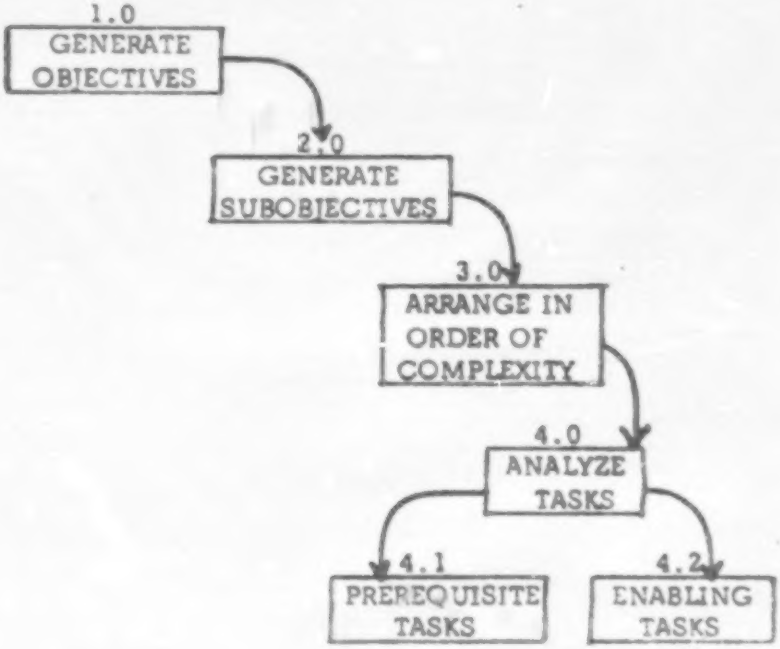
TASK ANALYSIS

Have you completed the behavioral objectives for the Learning Kit which you are developing? If not, do so now.

Your next task is to list the subobjectives for each behavioral objective which you have generated. This process is called a Task Analysis. See diagram below:

STEPS IN

ANALYSIS


1.0
GENERATE OBJECTIVES
2.0
GENERATE SUBOBJECTIVES
3.0
ARRANGE IN ORDER OF COMPLEXITY
4.0
ANALYZE TASKS
4.1
PREREQUISITE TASKS
4.2
ENABLING TASKS

FRAME 3

GO TO THE NEXT PAGE

TASK ANALYSIS CONT'd

DEFINITION

When the teacher analyzes her behavioral objectives in order to determine the specific kinds of tasks necessary to accomplish them, the process is called Task Analysis.

EXAMPLE

BEHAVIORAL OBJECTIVE

The student will divide three digit whole numbers with 90% accuracy.
Subobjectives: The student will—

Prerequisite Tasks

1. Discriminate between numbers.
2. Write multiplication facts through 9 x 9.
3. Regroup whole numbers in base ten.
4. Regroup whole numbers in other bases.
5. Add whole numbers in base ten.
6. Add whole numbers in other bases.
7. Subtract whole numbers in base ten.
8. Multiply whole numbers in base ten.

Enabling Tasks

9. Estimate the numbers of factors one number has in another.
10. Write left over digits in the form of proper fractions.
11. Reduce fractions to their lowest terms.
12. Write fraction equivalents.
13. Divide one digit number.
14. Divide two digit numbers.

FRAME 4

GO TO THE NEXT PAGE.

A Task Analysis means to analyze behavioral objectives for specific kinds of tasks which are necessary to accomplish the objective. These specific tasks are called:

SUBOBJECTIVES.

REVIEW

There are two kinds of Subobjectives:

1. Prerequisite tasks— the behavior which the learner must bring to the learning set.
2. Enabling tasks— the behavior which the learner will acquire in route to the behavioral objective.

FRAME 5

STOP! DO NOT GO TO THE NEXT PAGE.

FILM #5

ANSWER SHEET

APPROPRIATE PRACTICE

DIRECTIONS

In performing a Task Analysis your subobjectives will fall into four categories:

1. Equivalent practice,
2. Analogous practice,
3. Irrelevant behavior, and
4. Prerequisite tasks.

Category #3 should be avoided at all cost.

Follow the direction on the tape and complete the exercise below.

PRACTICE ACTIVITY I

1. A B
2. A B C
3. A B C
4. A B
5. Yes No
6. Yes No
7. Yes No
8. Yes No
9. Yes No
10. A________________________________

    B________________________________
11. A________________________________

    B________________________________

PRACTICE
ACTIVITY I
CONT'd

12. A B

13. A B C

14. A B C

15. A B C D

16. ____________________
____
____

17. ____________________
____
____

18. ____________________
____
____

19. Equivalent practice____________________
____
____

Analogous practice____________________
____
____

FRAME 6

STOP! DO NOT GO TO THE N[illegible]

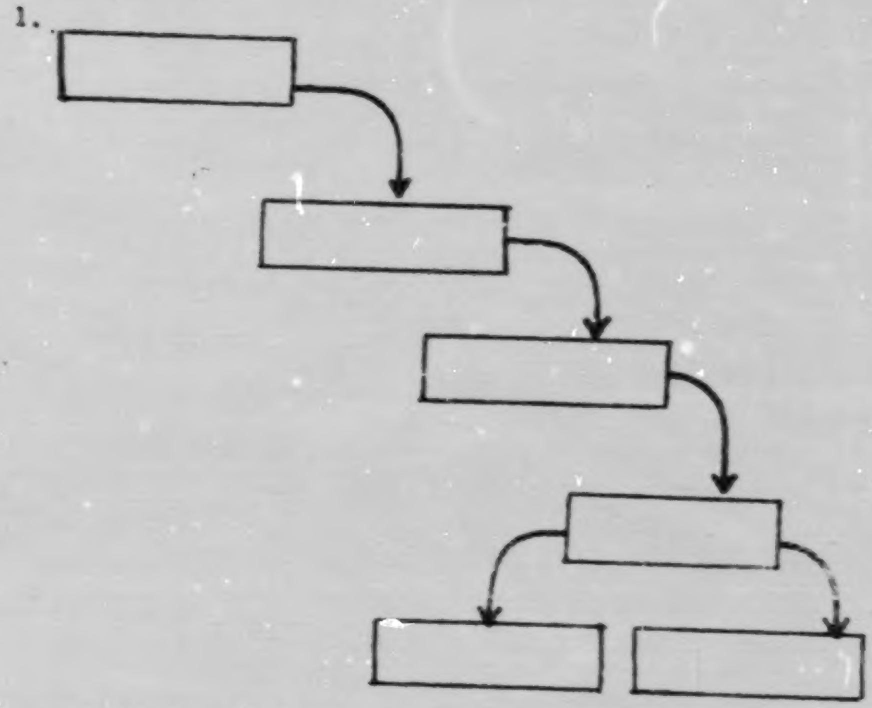
PRACTICE ACTIVITY II

DIRECTIONS

Below is a diagram which includes the steps involved in performing a Task Analysis.

Fill in all steps.

PRACTICE ACTIVITY II



DIRECTIONS

Below is a behavioral objective which will evaluate your skill in performing a Task Analysis. In the space provided below, list as many subobjectives as you can. Avoid irrelevant tasks.

1. The learner will demonstrate that he can cross the street on the appropriate signal light by responding correctly to a simulated signal light

GO ON TO THE NEXT PAGE.

in a classroom situation with 100% accuracy.
Subobjectives:

PRACTICE

ACTIVITY II

CONT'd

Prerequisite Tasks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Enabling Tasks

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

STOP! DO NOT GO TO THE NEXT PAGE.

DEVELOPING TEST ITEMS

Good test items have the following characteristics:

1. Reliability—
2. Validity—
3. Usability—
4. Discrimination.

As a classroom teacher you are basically concerned with the following kinds of tests:

TEST

GENERAL

INFORMATION

1. Entry tests—measure prerequisite behavior.
2. Pre-tests—measure terminal behavior prior to instruction.
3. Post-test—measure terminal behavior following instructions.
4. Discrepancy assessments—tests which are given at certain critical points which determine where a student is in relation to the desired terminal behavior.

In developing test items keep in mind that they should be:

1. Parallel,
2. Equivalent, and/or
3. Appropriate.

FRAME 8

STOP! DO NOT GO TO THE NEXT PAGE.

FILM #7

ANSWER SHEET

PRACTICE ACTIVITY III (EVALUATION)

DIRECTIONS

Follow the directions on the tape and complete the exercise below:

1. ______________________________

____

____

2. ______________________________

____

____

3. ______________________________

____

____

4. A B C

5. A B

6. A B

7. A B

8. ______________________________

____

____

9. ______________________________

____

____

PRACTICE ACTIVITY III

PRACTICE
ACTIVITY III
CONT'd

10. ______________________________

____

____

11. A B

12. A B

13. A B

14. ______________________________

____

____

15. A B

16. A B

FRAME 9

STOP! DO NOT GO TO THE NEXT PAGE.

POST-TEST

NOTE: This Post-test is to be completed on your own. When you have finished, touch base with your team leader for feedback.

1. Do a Task Analysis on each of the behavior objectives which you have generated for your Learning Kit by analyzing them into equivalent, appropriate and prerequisite tasks.

2. Develop test items which measure the following student behavior:

   A. Prerequisite behavior

   B. Terminal behavior.

   (Make sure that your test items are parallel, equivalent and/or appropriate).

GOOD LUCK

TMM - 305.02 - TSU

REFERENCE SYSTEM

WRITING BEHAVIORAL OBJECTIVES

BY

SUMPTER L. BROOKS
ASSISTANT PROFESSOR

TEACHER CORPS

SCHOOL OF EDUCATION

TEXAS SOUTHERN UNIVERSITY

HOUSTON, TEXAS 77004

STEPS IN COMPLETING MODULES

MODULAR

STEPS

1.0 You have just entered Module #2 on the Systemic (Systems) approach to Designing Instructional materials. GOOD LUCK, WE HOPE YOU FIND IT INTERESTING.

2.0 Read the prospectus which will give you a general overview of this module and its educational objective.

 2.1 Discuss the Module with several members of your group if you wish to.

3.0 Read the objectives of the Module. If you already have the skills, understandings and knowledge which are presented, you may wish to take a Pre-Test.

4.0 Read the initial instructions which will identify the media which you need to complete this Module.

5.0 Would you like to take the Pretest? If so, pick it up from the instructor.

 5.1 Take the Pretest and return it to the instructor.

 5.2 If your score is satisfactory, exit from the Module at Step #12.

6.0 Attend Seminar if you do not wish to take the Pre-Test or if your score on the Pre-Test is unsatisfactory. The activities will help you past the Post-Test.

7.0 View Film Strip #3: W. James Popham, "Selecting Appropriate Educational Objectives," Vincet Associates, Los Angeles: 1967. (See answer sheet on page 10 of your Workbook.)

8.0 Read the taxonomic classification on pages 7-9 of your Workbook.

9.0 View Film Strip #4: "Establishing Performance Standards," Eva L. Baker, Vincet Associates, Los Angeles: 1967. (See answer sheet on page 12-13 of your Workbook.)

GO TO THE NEXT PAGE

WRITING BEHAVIORAL OBJECTIVES

Prospectus:

An instructional objective is nothing more than an intent communicated by a statement describing a proposed change in a learner; a statement of what the learner is to be like when he successfully completes a learning experience. It is an explicit description of the overt behavior pattern which the teacher wants the learner to be able to demonstrate. Clearly defined objectives have several advantages:

1. They are intimately related to all other phases of the teaching model—entering behavior, preassessment, instructional procedure, and performance assessment.
2. They make it possible to evaluate the degree to which the learner is able to perform in the desired manner.
3. They make it possible for the student to evaluate his own progress at any place along the route of instructions and enable him to organize his own effort into relevant activities.

The degree to which you are successful in becoming an excellent teacher will depend largely upon your ability to transmit skills and knowledge to others through sound behavioral objectives. The purpose of this Module is to help you develop skills in writing behavioral objectives.

OBJECTIVES

BEHAVIORAL OBJECTIVE

Upon completion of the materials and learning experience in this Module you will be able to, in your subject-matter area, write at least one behavioral objective in the lower and higher orders in each of the three taxonomic domains using Mager's three components.

Enabling Objectives:

The enabling objectives for this Module are as follows:

TASK ANALYSIS

1. The participant identifies given words as those words which are "open to many interpretations" or those which are "closed to many interpretations." (90% accuracy)
2. The participant successfully identifies in given objectives the three components as described by Mager (1962). (100% accuracy)
3. The participant identifies given objectives as behavioral or non-behavioral in regards to Mager's three components. (90% accuracy)
4. The participant classifies given objectives into taxonomic categories of cognitive, affective and psychomotor as identified by Bloom (1956), Krathwohl (1964) and Kapfer (1971), respectively. (90% accuracy)
5. The participant classifies given objectives in each taxonomic domain as belonging to the lower or higher order of categories. (90% accuracy)

Prerequisite:

The only prerequisite for this Module is that you are a pre- or inservice teacher who are desirous of improving your teaching skills or writing better instructional objectives.

FRAME 2

GO TO THE NEXT PAGE.

GENERAL INSTRUCTIONS

In order to use this Module as it was designed you will need:

1. This Workbook.
2. Film Strip #3: W. James Popham, "Selecting Appropriate Educational Objectives," Vincet Associates, Los Angeles: 1967.
3. Film Strip #4: "Establishing Performance Standards," Eva L. Baker, Vincet Associates, Los Angeles: 1967.
4. Reel-to-reel tape recordings which accompany Film Strips #3 and #4 above.
5. A reel-to-reel tape recorder.
6. A film strip projector.

NOTE:

You should first attend an Orientation Seminar on Writing Behavioral Objectives. See your instructor for a date and time.

FRAME 3

STOP! DO NOT GO TO THE NEXT PAGE.

PRACTICE ACTIVITY I

DIRECTIONS

Now let's see how well you can identify the three basic components of behavioral objectives. Examine each of the following statements; then, underline the "terminal behavior" with a single line, the "conditions" with a double line, and the "criteria" with a wavy line as shown by the example below.

EXAMPLE:

In a classroom situation the student will be able to type a letter in block form without error.

INSTRUCTIONAL OBJECTIVES

1. Given a list of spelling words following instruction, all students will be able to spell at least 90% of the words correctly.
2. Given a list of the U.S. presidents, the student will be able to underline those presidents who were in office during World War II, without error.
3. Following instruction, the student will demonstrate interest in creative writing by voluntarily writing at least one essay which has not been assigned by the teacher.
4. Following classroom demonstrations by the teacher the student will be able to list at least three examples of Newton's first law of motion.
5. Given a list of countries and principal natural resources, the student will be able to match them with 80% accuracy.

FRAME 4

STOP! DO NOT GO TO THE NEXT PAGE.

PRACTICE ACTIVITY II

Below is a list of objectives which will test your ability to discriminate between behavioral and non-behavioral objectives. Identify them as follows:

DIRECTIONS

B = Behavioral

N = Non-behavioral

In the space provided below the objective, give reasons for those objectives which you identify as non-behavioral (No conditions, no criteria, no terminal behavior, or terminal behavior not stated as action verbs.)

______ 1. When given a paragraph in Spanish the learner will translate it into English without aids and with no more than three errors.______
______

______ 2. Outside the classroom and with the use of adequate references, the learner will be able to write an essay describing the events leading to the civil war. Successful achievement will be determined by the subjective judgment of the teacher.______
______

PRACTICE ACTIVITY III

______ 3. When given a list of problems of the form

$$AX^2 + BX + C = 0$$

the student will understand how to solve them without error.______
______

______ 4. Given a protractor and a straight edge the students will be able to draw a right triangle, and isosceles triangle, and an equilateral triangle without error.______
______

GO TO THE NEXT PAGE.

PRACTICE ACTIVITY III

CONT'D

______________ 5. Given the test scores of thirty students the learner will understand how to calculate the mean, median, and standard deviation.____________________

____

FRAME 5

STOP! DO NOT GO TO THE NEXT PAGE.

PRACTICE ACTIVITY III

DIRECTIONS

Below is a list of objectives which will evaluate your understanding of the taxonomic classification of behavioral objectives. Classify each as follows:

C = Cognitive   A = Affective   P = Psychomotor

__________ 1. The learner will demonstrate that he appreciates classical music by voluntarily attending at least two concerts of classical music within six weeks following instruction.

__________ 2. When given a diagram of an assembled distallation unit, the student will be able to duplicate the arrangement without error.

PRACTICE

ACTIVITY

IV

__________ 3. Following three weeks of physical practice the students will be able to run the 100 yard dash in no more than thirteen seconds.

__________ 4. The learner will demonstrate his interest for Texas History by voluntarily reading at least two books during the semester which have not been assigned by the teacher. The books will be on Texas History.

__________ 5. The learner will be able to solve eight out of ten three-digit multiplication problems in thirty minutes or less.

FRAME 6

STOP! DO NOT GO TO THE NEXT PAGE.

Bloom (1956) and Krathwohl (1964) have further divided the behavioral domains into hierarchical variables. These variables progress from simple to complex and are stated in their hierarchical order of complexity.

Below are the subdivisions into which each of the taxonomic domains has been divided.

BEHAVIORAL

DIMENSIONS

1. Cognitive:

   KNOWLEDGE - The learner recalls and recognizes events and facts.

   COMPREHENSION - The learner interprets, translates, or paraphrases materials.

   APPLICATION - The learner transfers learned materials to new situations.

   ANALYSIS - The learner breaks complex materials into component parts.

   SYNTHESIS - The learner combines elements to form a more complex whole.

   EVALUATION - The learner makes judgments based on a given set of criteria.

2. Affective:

   RECEIVING - The learner is aware of or is passively attending to certain stimuli.

   RESPONDING - The learner reacts to certain stimuli.

   VALUING - The learner voluntarily displays behavior consistent with a single belief.

   ORGANIZATION - The learner is committed to a set of values as displayed by his overt behavior.

GO TO THE NEXT PAGE

CHARACTERIZATION - The learner's behavior is consistent with his philosophy of life.

3. Psychomotor:

BEHAVIORAL DIMENSIONS CONT'D

FREQUENCY - The number of times the learner performs a motor skill.

ENERGY - The amount of power the learner needs to perform a motor skill.

DURATION - The length of time the learner engages in a motor skill.

You are not expected to memorize the above classification of variables in the behavioral domains. They are only presented here to help you get a better picture of the taxonomic classifications of behavioral objectives.

Take a few minutes and read the list carefully; don't worry about minute details. You will be requested to make reference to the list later in this section.

FRAME 7

GO TO THE NEXT PAGE.

HELPFUL ACTION VERBS

Below is a list of action verbs in each taxonomic domain. If necessary use these lists in generating the objectives for your self-instructional package. You are not restricted to only the use of the words presented here: the list is not all inclusive. It is only a suggested list to help you get started.

COGNITIVE ACTION VERBS:

counts
names
states
completes
lists
constructs
evaluates
discriminates
solves
classifies
compares
defines
demonstrates
analyzes
distinguishes
identifies
locates
measures
orders
predicts
synthesizes

ACTION

VERBS

AFFECTIVE ACTION VERBS:

asks
holds
serves
generalizes
plans
follows
helps
chooses
sits erect
qualifies
integrates
modifies
initiates
reads
selects
uses
questions
organizes
relates
proposes
alters

PSYCHOMOTOR ACTION VERBS:

assembles
manipulates
builds
locates
stirs
catches
designs
wraps
mends
cleans
makes
starts
hits
dismantles
weighs
mixes
fixes
paints
grinds
bats
drills

FRAME 8

STOP! DO NOT GO TO THE NEXT PAGE.

ANSWER SHEET

FILM STRIP #3

"Selecting Appropriate Educational Objectives."

DIRECTIONS Unless you are told to do otherwise, circle the correct answers in each of the questions below.

1. A B
2. A B
3. A B
4. A B
5. A B
6. A B
7. A B
8. A B
9. A B
10. Label each as follows:

C = Cognitive A = Affective P = Psychomotor

___A ___C

___B ___D

11. C A P
12. C A P
13. C A P
14. C A P

GO TO THE NEXT PAGE

15.	L	H
16.	L	H
17.	L	H
18.	L	H
19.	C	L
	A	H
	P	
20.	C	L
	A	H
	P	
21.	C	L
	A	H
	P	
22.	C	L
	A	H
	P	

FRAME 9

ANSWER SHEET

FILM STRIP #4

"Establishing Performance Standards."

1. A B

2. Yes___ No___

3. Yes___ No___

4. Yes___ No___

5. Yes___ No___

6. The minimal level of performance is "________

____."

7. Yes___ No___

8. The minimal level of performance is "________

____."

9. Yes___ No___

10. The minimal level of performance is "________

____."

11. Yes___ No___

12. A B C

13. A B C

Label the examples in No's. 14 and 15 as follows:

S = Student C = Class N = None

14. ___A ___C

___B ___D

GO TO THE NEXT PAGE

POST-TEST

(10 minutes)

1. List the three Taxonomic Domains as identified by Bloom and Krathwohl.

   A.______________________________________

   B.______________________________________

   C.______________________________________

2. List the three components of behavioral objectives as described by Mager.

   A.______________________________________

   B.______________________________________

   C.______________________________________

3. In the space provided, identify the following words as (O) open to many interpretations or (C) closed to many interpretations:

   A. __________ Write

   B. __________ Know

   C. __________ Recite

   D. __________ Solve

   E. __________ Understand

   F. __________ Believe

   G. __________ Compare

   H. __________ Appreciate

   I. __________ Identify

   J. __________ To group

4. In the space provided, mark the following objectives as (B) Behavior or (N) Non-Behavioral.

   A. __________ Outside the class the students will write a scholarly five page essay on the rise and fall of the Roman Empire from a sociological viewpoint. They will use the appropriate footnotes and bibliographies. Acceptable performance will be determined by the Subjective judgment of the teacher.

GO TO THE NEXT PAGE

B. ____________ The students will learn the preamble to the United States Constitution.

C. ____________ Given the dimensions, the students will be able to compute the areas of squares, triangles and circles (problems, paper and pencil only) - 80% accuracy.

D. ____________ The students will demonstrate an appreciation for modern art.

E. ____________ The students will type, error free, on a standard typewriter a fifty word paragraph

5. In the space provided label the following objectives as being (C) Cognitive, (A) Affective or (O) Psychomotor:

A. ____________ The students will demonstrate their appreciation for classical music by attending at least four of eight concerts of classical musi

B. ____________ In class the students will be able to write a three page essay on the dangers of water pollution via Iron Sulfate, as advocated by the American Dental Society, without the use of outside material, in a period of 30 minutes.

C. ____________ The students will demonstrate their ability to throw a softball with accuracy by throwing a standard 12 inch softball through an automobile tire (7-75:15) suspended three feet from the ground at a distance of 32 feet with an accuracy of 70%.

D. ____________ The class will demonstrate their acceptance of the rule "quiet while others speak" by not talking during any of the two minute speeches given by the 15 members of the class.

E. ____________ The students will be able to solve 4 out of 5 linear equations in class, without the aid of outside material, in one hour.

GO TO THE NEXT PAGE

F. ________ The class will demonstrate their abilit in the use of the Australian Crawl, by crawling at least 100 yards in a perioc of 2 minutes.

6. In your subject-matter area, write one behavioral objective in each of the three taxonomic domains using Mager's three components.

FRAME

REFERENCES

"Behavioral Objectives"

Armstrong, Robert J., et al (1968). Developing and Writing Behavioral Objectives. Tucson, Arizona: Educational Innovators Press, Inc.

Bloom, Benjamin S., et al., (1956). Taxonomy of Educational Objectives: Handbook I, Cognitive Domain. New York: Logmons, Green and Company.

DeCecco, John P. (1968). The Psychology of Learning and Instruction: Educational Psychology. Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Gagne, Robert, (1965). "Educational Objectives and Human Performance: In Krumboltz," Learning and the Educational Process. Chicago: Rand McNally and Company.

Gronlund, Norman E., (1970). Stating Behavioral Objectives for Classroom Instructions. New York: The MacMillan Company.

Haberman, Martin. (1968). "Behavioral Objectives: Bandwagon or Breakthrough," The Journal of Teacher Education, Vol. 19 (Spring), 1:91-94.

Hernandez, David E., (1971). Writing Behavioral Objectives. New York: Barnes and Noble.

Kapfer, Miriam B. (1971). Behavioral Objectives in Curriculum Development: Selected Readings and Bibliography. Englewood Cliffs, N.J.: Educational Technology Publications.

Krathwohl, David R., et al. (1964). Taxonomy of Educational Objectives: Handbook II, Affective Domain. New York: David McKay Company.

Kibler, Robert, et al. (1970). Behavioral Objectives and Instruction. Boston: Allyn and Bacon, Inc.

Mager, R. F. (1962). *Preparing Instructional Objectives*. Palo Alto: Fearon Publishers.

McAshan, H. H. (1970). *Writing and Behavioral Objectives: A New Approach*. New York: Harper and Row.

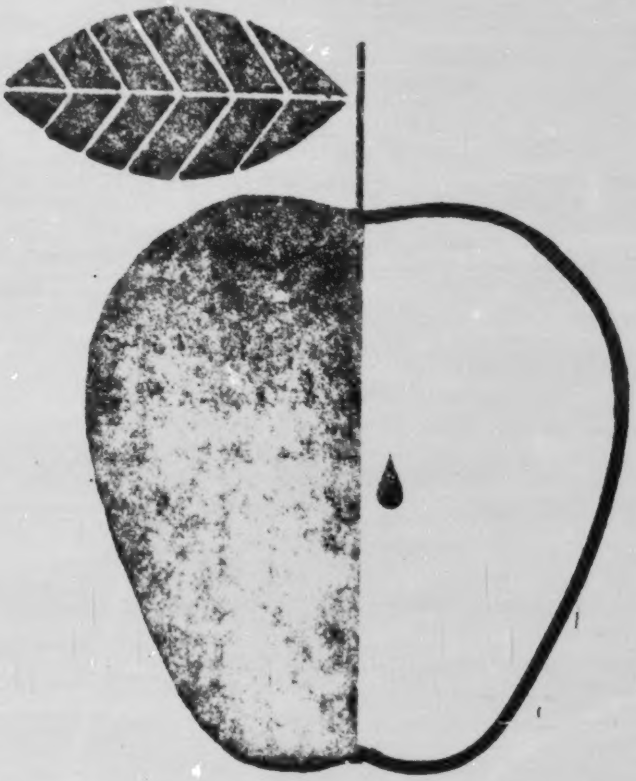
Popham, W. J. (1969). "Objectives and Instruction," in *AERA Monograph Series on Curriculum Evaluation*, No. 3. Chicago: Rand McNally.

Popham, W. J. and E. Baker (1969). *Establishing Instructional Goals*. Englewood Cliffs, N.J.: Prentice-Hall, Inc.

TMM - 305.01 - TSU

REFERENCE SYSTEM

"THE SYSTEMIC APPROACH TO DESIGNING INSTRUCTION"



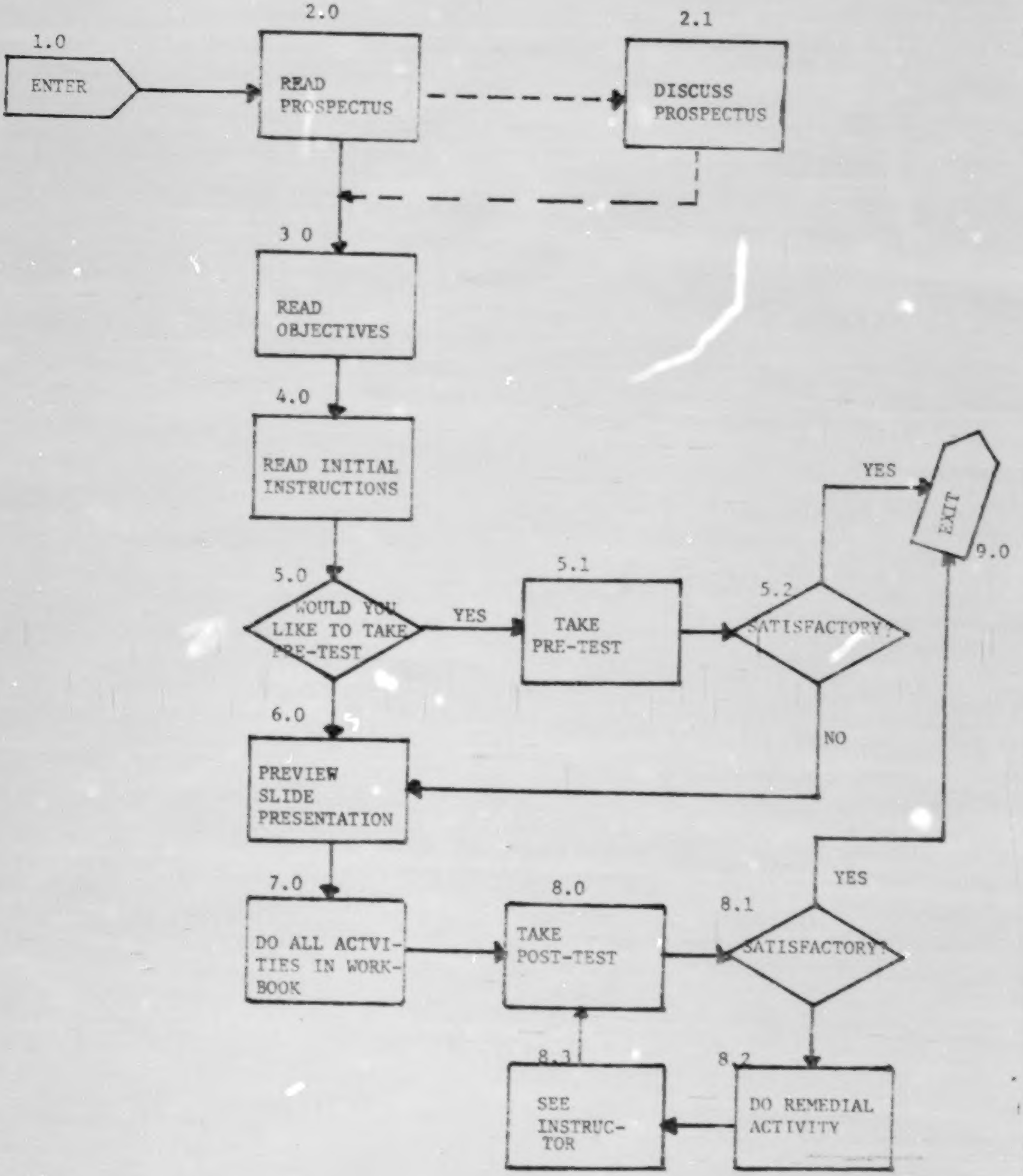
TEACHER CORPS
SCHOOL OF EDUCATION
TEXAS SOUTHERN UNIVERSITY
HOUSTON, TEXAS 77004

BY

SUMPTER L. BROOKS
Assistant Professor

"THE SYSTEMIC APPROACH TO DESIGNING INSTRUCTION"

Flowchart


1.0
ENTER
2.0
READ PROSPECTUS
2.1
DISCUSS PROSPECTUS
3 0
READ OBJECTIVES
4.0
READ INITIAL INSTRUCTIONS
5.0
WOULD YOU LIKE TO TAKE PRE-TEST
YES
5.1
TAKE PRE-TEST
5.2
SATISFACTORY?
YES
EXIT
9.0
NO
6.0
PREVIEW SLIDE PRESENTATION
7.0
DO ALL ACTVI-TIES IN WORK-BOOK
8.0
TAKE POST-TEST
8.1
SATISFACTORY?
YES
8.2
DO REMEDIAL ACTIVITY
8.3
SEE INSTRUC-TOR

PROSPECTUS

Who teaches? Who learns? What content is taught? How is content taught. These four questions can be said to account for 99% of all the argument, discussion, controversy and legislation in the history of educational endeavor. The first three questions are usually answered in varying degrees by state and federal legislature, and, to some extent, by professional teaching and service organizations. The fourth question, however, is always one in "open season." Wherever professional educators, parents and students gather, the merits of teaching "methods" are heatedly discussed.

This is a cluster of instructional modules which has been specifically developed to help pre-service teachers find answers to the many questions relative to the how of teaching. You will find solutions to such questions as ... Is there a way to design effective instructions that can be used on an individual or group basis ...Can this be accomplished without taking a disproportionate amount of teaching time...How can I be assured that my students have learned what I have planned for them to learn...How can I provide for individual learning rates and styles...How can I make my instructions less dry, more stimulating and more human? It is believed that the systems approach will provide some very meaningful answers to you. This module is the introductory module to the cluster. It is specifically designed to help you grasp an understanding of what the systems approach to designing instruction is all about.

You will be introduced to the basic philosophy and a basic teaching model which will be used throughout this cluster of modules. The modules included in this cluster are:

1) Introductory Module
2) Writing Behavioral Objectives
3) Selecting Content
4) Test Development
5) Determining Strategies
6) Flow Charting
7) Validation and Revision

Good luck with the materials which are present in this cluster. We are pulling for your teaching success all the way.

Sumpter L. Brooks
Sumpter Brooks

STEPS IN COMPLETING THE MODULE

1.0 You have just entered the introductory module on the Systemic (systems) approach to Designing Instructional Materials. GOOD LUCK; WE HOPE YOU FIND IT INTERESTING.

2.0 Read the prospectus which will give you a general overview of the module and its educational objectives.

  2.1 Discuss the module with several members of your group if you wish to. (Optional).

3.0 Read the objectives to the module. If you already have the knowledge, skills and understandings which are presented, you may wish to take the pretest.

4.0 Read the initial instructions which will identify the media which you need to complete this module.

5.0 Would you like to take the Pre-Test? If so, pick it up from the instructor.

  5.1 Take the pre-test and return it to your instructor.

  5.2 If your score is satisfactory, exit from the module; if it is not satisfactory proceed to the next step (6.0).

6.0 Review the slide presentation labelled "The Systemic approach to Designing Instruction!! The activities will help you pass the post-test.

7.0 Do all activities in the workbook when you are referred to them by the slide presentation.

8.0 Take the Post-Test.

  8.1 If your score is satisfactory exit from the module.
  8.2 If your score is not satisfactory do the related remedial exercises.
  8.3 See your instructor for point of reentry. He may or may not wish for you to take the Post-Test for the second time.

9.0 Exit from the module. You have met the required competencies.

BEHAVIORAL OBJECTIVES

BEHAVIORAL OBJECTIVE

Upon completion of this module you will be able to list the components of a simple system & of the Teaching Model used in this cluster with 100% accuracy.

TASK ANALYSIS

ENABLING TASKS

You will be able to:

1. Fill in all of the components in a Simple Systems model.
2. List at least five (5) examples of Natural Systems.
3. List at least five (5) examples of Synthetic Systems.
4. List examples of all of the component parts of an Educational System.
5. Differentiate between educational goals and instructional objectives.
6. Fill in all of the component parts of the teaching model used in this cluster; "The Systemic Approach to Resigning Instructions."
7. Write brief definitions of each of the components parts represented in the teaching model used in this cluster.

PREREQUISITES

The only prerequisite for this module is that you are a pre or in-service teacher who are desirous of improving your teaching skills in designing instructional materials.

Stop! Do Not Go to the Next Page

INITIAL INSTRUCTIONS

- IN ORDER TO USE THIS MODULE AS IT WAS DESIGNED YOU WILL NEED:

1. This workbook
2. A cassette tape labelled "The Systemic approach to Designing Instructions."
3. A slide tray labelled "Module 1 — The Systemic Approach to Designing Instructions."
4. A cassette tape recorder
5. An Ektagraphic slide projector

- Make sure that you have all of the materials.
- Place the Ektagraphic slide tray on the projector
- Place the cassette tape, with Side I up, into the cassette tape recorder.

IF	THEN
You have all the necessary contents	Start the tape recording and follow instructions.
Something is missing	Touch base with your instructor to find its location.

FRAME 2

PRACTICE ACTIVITY I

DIRECTIONS

In the space provided below, list five (5) examples each of Natural Systems and Synthetic Systems.

PRACTICE EXAMPLES OF SYSTEMS

Natural Systems:

1.

2.

3.

4.

5.

Synthetic Systems

1.

2.

3.

4.

5.

NOTE: Take three (3) minutes and discuss your answers with your nearest neighbor. If there is any discrepancy in your beliefs, call the instructor.

FRAME 3

Go to the Next Page and Check Examples

ANSWERS TO ACTIVITY I

DIRECTIONS

Below are some examples of natural and Synthetic Systems. See how these compare with your examples. If there are discrepanies call your instructor.

EXAMPLES OF SYSTEMS

Natural Systems:

1. Rivers of the U.S.
2. Mountains of the U.S.
3. Any animal
4. Any plant
5. Oceans

Synthetic Systems:

1. Interstate Highways
2. Bell Telephone Network
3. Irrigation ditches of a farm
4. Municipal government
5. An automobile

IF	THEN
You are satisfied with the five examples which you gave	Restart your slide presentation
You could not list five examples for both Natural and Synthetic Systems	Go back now after having read our examples and complete your examples. Then restart the slide presentation.

FRAME 4

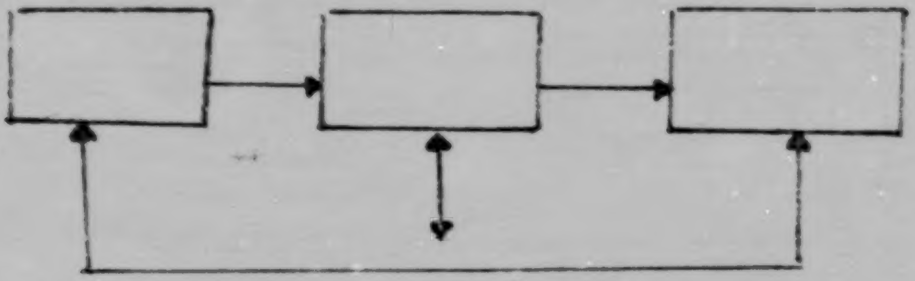
Stop! Do Not Go to the Next Page.

PRACTICE ACTIVITY II

DIRECTIONS

Below is a diagram of a simple system; fill in its four (4) component parts.

1.



PRACTICE ACTIVITY II

In the space provided below list the component parts of an educational system and give examples of each.

2. I_ _ _ _
   a.
   b.
   c.
   d.

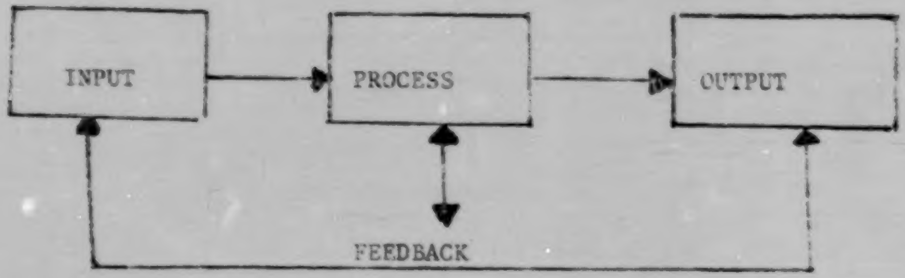
3. P_ _ _ _ _ _ _
   a.
   b.
   c.
   d.

4. O_ _ _ _ _
   a.
   b.
   c.
   d.

FRAME 5

Go to the next page and check your answers.

1.



ANSWERS TO
ACTIVITY II

2. Input Conditions
   a. Educational
   b. Students
   c. Resources
   d. State and National regulations, etc.

3. Process Conditions
   a. Teaching methods
   b. Teacher-Student interaction
   c. Teacher-Student-Material interaction
   d. Content sequence, etc.

4. Output
   a. Communication skills
   b. Citizenship
   c. Vocational skills
   d. Physical health, etc.

FRAME 6

Stop! Do Not Go to the Next Page; restart the presentation.

PRACTICE ACTIVITY III

DIRECTIONS

In the space below write five (5) wishes relative to your children's welfare. Make sure that they are complete sentences.

1.

2.

PRACTICE ACTIVITY III

3.

4.

5.

FRAME 7

Stop! Do Not Go to the Next Page. Restart your presentation when ready.

EDUCATIONAL GOALS VS. INSTRUCTIONAL OBJECTIVE

Educational goals and instructional objectives are both statements of learning outcomes:

EDUCATIONAL GOALS

Educational goals are general statements of educational intent. The "action verbs" which describes the behavior of the learner in educational goals is usually vague, general and open to many interpretations. For example:

To understand	To believe
To have faith in	To have concern
To appreciate	To know

EXAMPLES OF EDUCATIONAL GOALS:

1. The student will be able to apply the basic principles of mechanics.

2. The students will know the principles of atomic energy.

In the two examples above the "action verbs" are:

1. To apply, and

2. To know

The verbs are vague; they do not express overt behavior on the part of the learner. Therefore, they are best suited for educational objectives.

FRAME 8

Go on to the Next Page

Instructional objectives are generated from educational goals. Objectives, therefore, differ from goals in their degree of specificity; they are clear, explicit, measurable and obtainable through instruction. Objectives which have the above characteristics and which simultaneously focus on the terminal behavior of the learner are behavioral objectives. The "Action Verbs" used in writing instructional objectives express overt behavior which is observable. For example:

To recite	To identify
To walk	To select
To control	To write

EXAMPLES OF INSTRUCTIONAL OBJECTIVES:

1. The student will be able to list three examples of Newton's First Law of Motion.
2. The student will be able to draw the atomic structure of the first 25 elements on the periodic table.

The action verbs in the above two examples are:

1. To list, and
2. To draw

These are explicit and observable and are, therefore, best suited for instructional objectives.

FRAME 9

Go to the Next Page and do the Practice Activity.

PRACTICE ACTIVITY IV

DIRECTIONS

This practice activity presents a list of statements which will test your ability to discriminate between educational goals and instructional (behavior) objectives. Label each statement as follows:

E=Educational Goals I=Instructional Objectives

PRACTICE ACTIVITY 10

________ 1. The student will construct an equilateral triangle

________ 2. The student will understand the causes of the American Revolution.

________ 3. The student will learn to use the oscilloscope.

________ 4. The student will appreciate Newton's third law of motion.

________ 5. The student will discriminate between mammals and reptiles.

________ 6. The student will have faith in the Bible.

________ 7. The student will erect a water tower.

________ 8. The student will write an description of how to repair a broken fan belt.

________ 9. The student will type 60 words in one minute

________ 10. The student will love the Study of Nature.

FRAME 10

Go to the next page and check your answers.

ANSWERS TO PRACTICE ACTIVITY IV

Yours Answers Should Be:

ANSWERS

Educational Goals	Instructional Objectives
2,3,4,6&10	1,5,7,8&9

If	Then
You got at least eight correct	Excellent! You understood the activity perfectly. Keep up the good work. Re-start your visual presentation
You missed more than two	Oops! You goofed. Go back and re-read the section on Educational Goals and Instructional Objectives on pages 8 and 9. Then correct your errors. When you have finished re-start your visual presentation.

FRAME 11

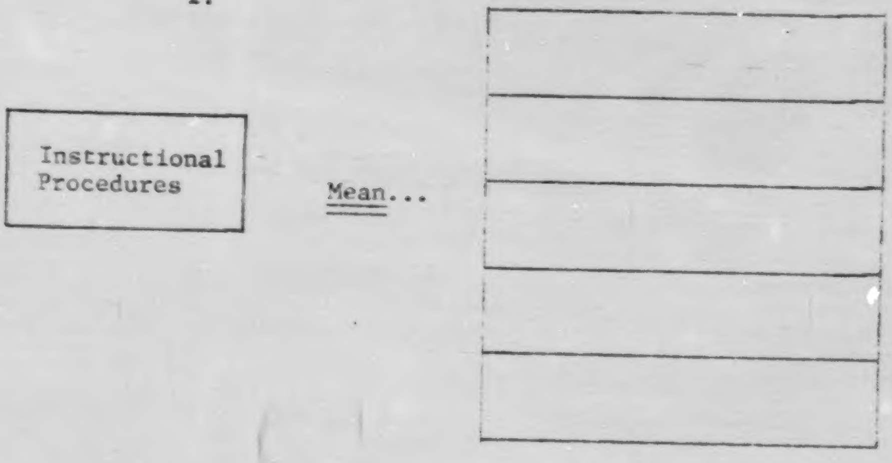
Go to the next page and check your answers.

PRACTICE ACTIVITY V

DIRECTIONS

Below is a Diagram which will allow you to express your understanding of what "INSTRUCTIONAL Procedures" mean. Fill in the five empty boxes on the right.

1.



PRACTICE ACTIVITY V

2. List at least three examples for each answer you gave for question #1 above.

FRAME 12

Go to the next page and check your answers.

ANSWERS TO PRACTICE ACTIVITY V

1. Instructional Procedures Mean...

- Determination of Strategies
- Organization of Groups
- Allocation of Time
- Allocation of Space
- Selection of Resources

ANSWERS TO ACTIVITY V

2.

Strategies
- a. Lecturing
- b. Discussion
- c. Demonstration
- d. Field Trips
- e. Role Playing
- f. Simulation
- g. Games, etc.

Groups
- a. Small Groups
- b. Large Groups
- c. Ability Groups
- d. Achievement Groups
- e. Age Groups
- f. Size or Height Groups, etc.

Resources
- a. Money
- b. Personnel
- c. Equipment
- d. Student, etc.

Time
- a. Large Time Blocks
- b. Small Time Blocks
- c. Class Periods
- d. Semesters, etc.

Space
- a. Classroom
- b. Auditoriums
- c. Playgrounds, etc.

Go on to the next page.

ANSWERS TO PRACTICE ACTIVITY V Cont'd.

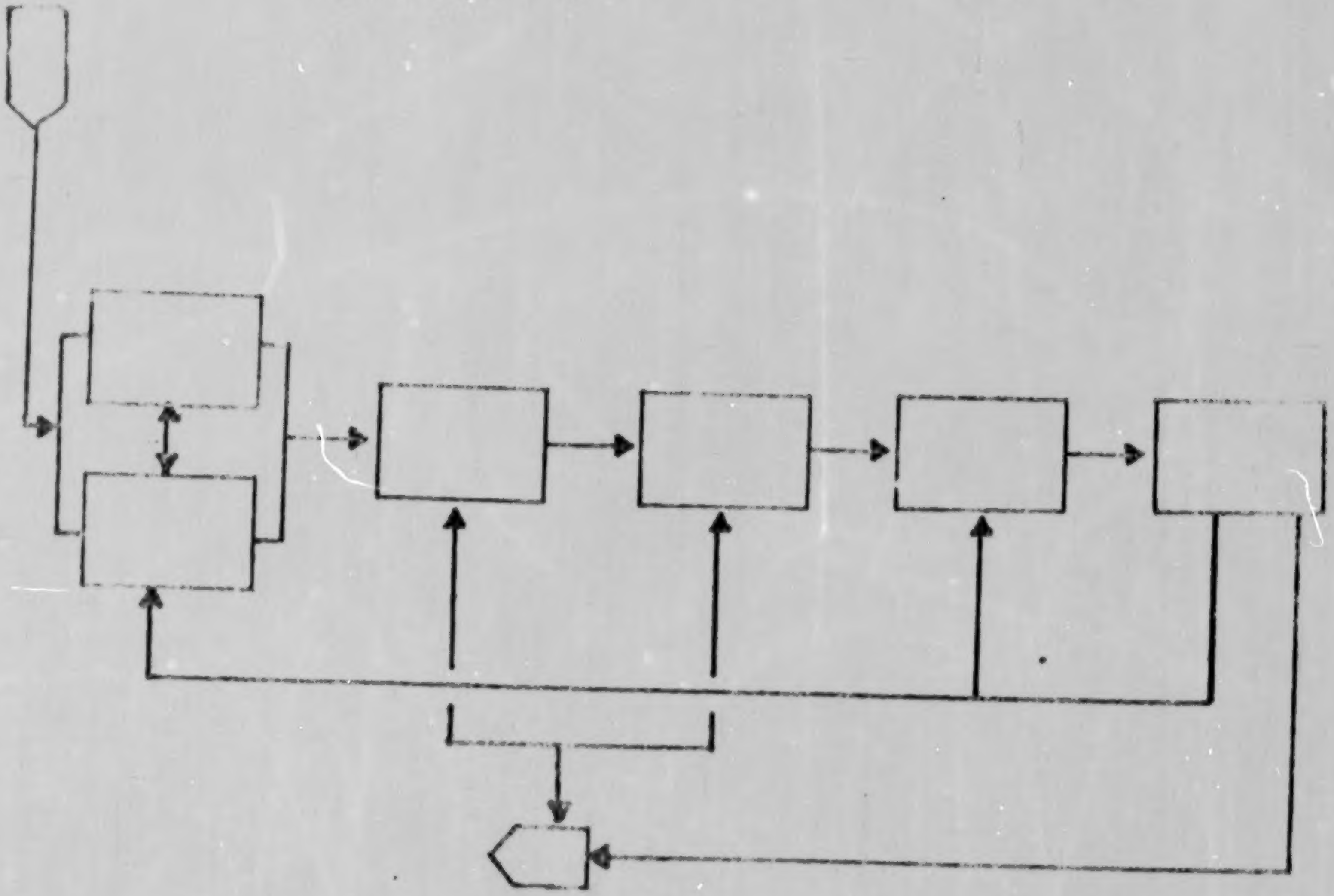
You got at least four of the answers in question one correct	Good. Go to questi # 2 and compare you answers with those which we have liste Then restart your slide presentation
You missed more than one of the answer to question # 1	Correct your error by reviewing slide number 53 through 60. Then compare your answers in question # 2 with those which we lis ed. When you are ready restart the slide presentation

STOP! DO NOT GO TO THE NEXT PAGE.

DIRECTIONS

Below is a blank diagram of the Teaching Model used in this cluster of Modules. Fill in all of the missing parts.
Then go to question # 2.

1.



Go to the next page

2. Briefly define the component parts of the Model which you names in question # 1.

   a.

   b.

   c.

   d.

   e.

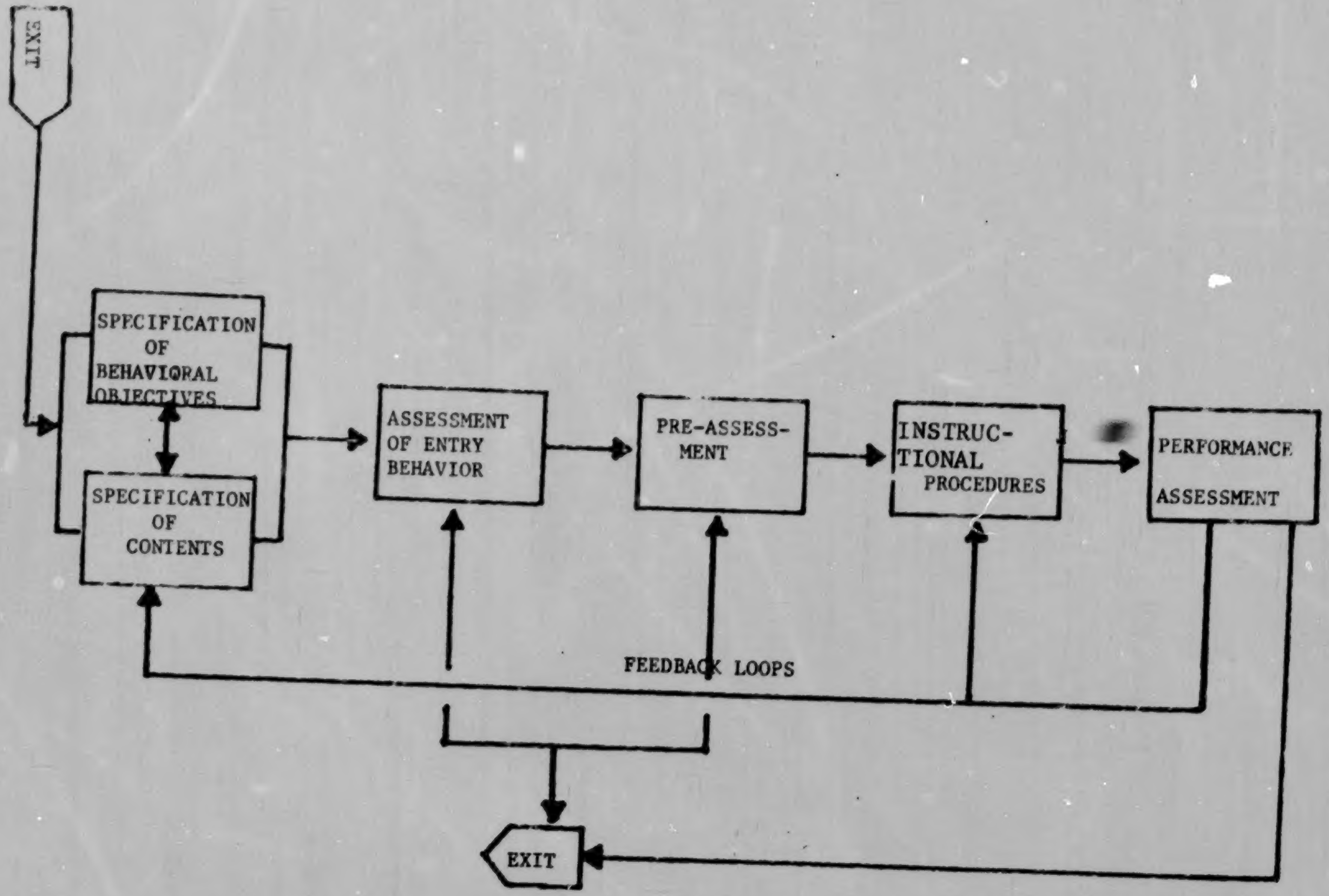
   f.

   g.

   h.

FRAME 14

GO TO THE NEXT PAGE AND CHECK YOUR ANSWERS.


EXIT
SPECIFICATION OF BEHAVIORAL OBJECTIVES
SPECIFICATION OF CONTENTS
ASSESSMENT OF ENTRY BEHAVIOR
PRE-ASSESS-MENT
INSTRUC-TIONAL PROCEDURES
PERFORMANCE ASSESSMENT
FEEDBACK LOOPS
EXIT

GO THE NEXT PAGE

ANSWERS TO PRACTICE ACTIVITY VI Cont'd.

2. Definitions
    a. Behavioral objectives--the performance goals of the learner.
    b. Contents--subject matter to be covered
    c. Entry behavior--prerequisite behavior of the learner
    d. Pre-assessment—Evaluation of the terminal behavior of the learner prior to instruction
    e. Instructional Procedures - methods, materials, and strategies used by teacher to reach objective.
    f. Performance assessment--evaluation of terminal behavior of learner following instructions.
    g. Feedback loops---means of collecting data and recycling students who fail to reach the criteria.
    h. Entry and exit points -- points where the students may start and stop the module respectively.

IF	THEN
You missed none of the steps to the teaching model	Great. Restart your slide presentation
You missed one or more of the steps in the teaching model	That's too bad. This is a very important step. Go back to the answers on Page 16 and commit the steps to memory. Then look at their definitions on Page 17 above. Discuss these with a neighbor if you wish to. When you have finished restart your slide presentation

FRAME 15

STOP! DO NOT GO TO THE NEXT PAGE.

POST-TEST

"THE SYSTEMATIC APPROACH TO DESIGNING INSTRUCTIONS"

1. Below is a diagram of a Simple Systems Model. Fill in the Component Parts. (Criteria = 100%)

2. List five examples of Natural Systems. (Criteria = 100%)

   a.

   b.

   c.

   d.

   e.

3. List five examples of Synthetic Systems. (Criteria = 100%)

   a.

   b.

   c.

   d.

   e.

4. List at least three examples of each of the following component parts of an Educational System. (100%)

   A. Input

      1.

      2.

      3.

   B. Process

      1.

      2.

      3.

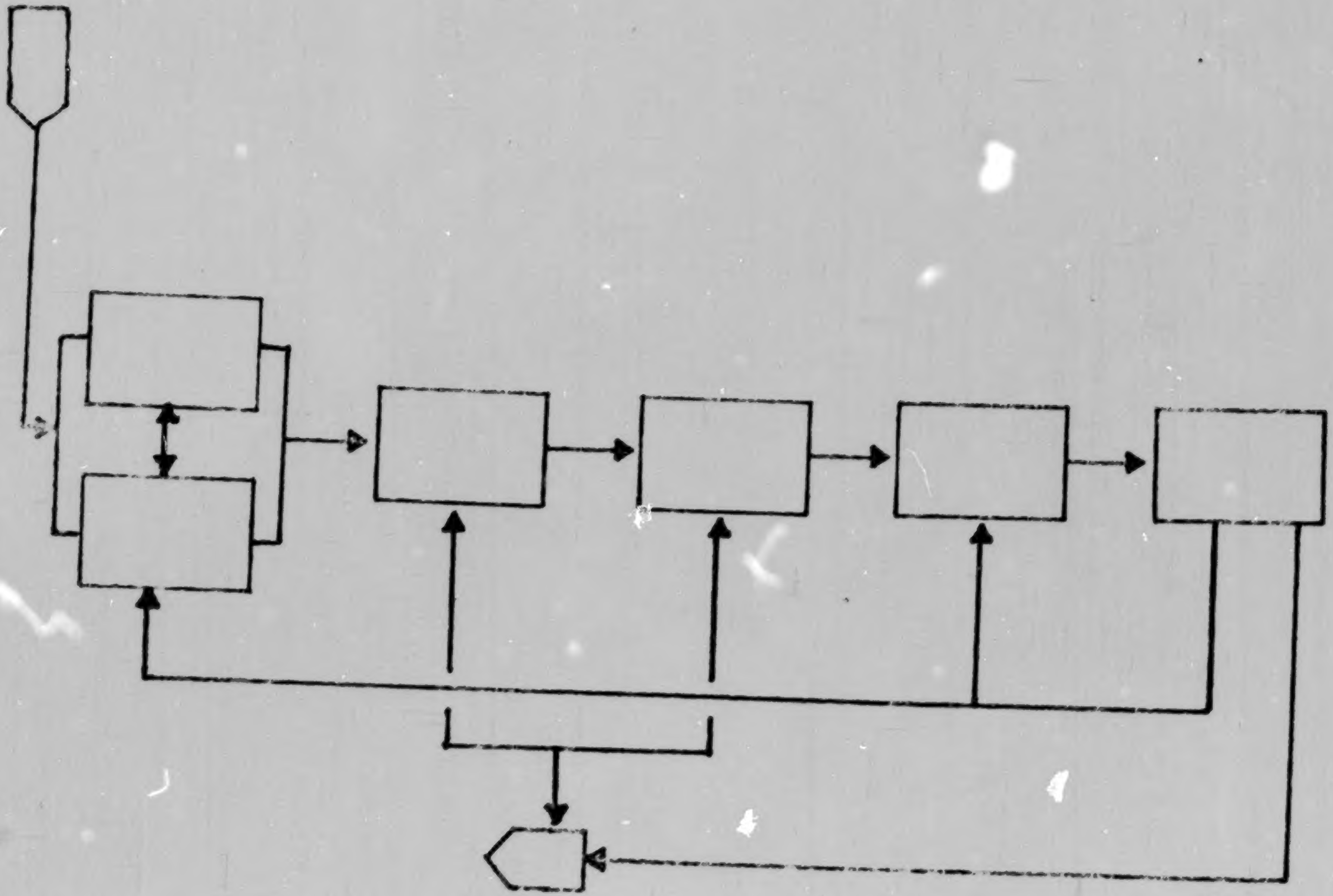
   C. Output

      1.

      2.

      3.

5. Fill in each of the components to the teaching model below. (Criteria = 100%)



6. Write a brief definition for each of the components in the teaching model in question #5, above. (Criteria = 90%)

a.

b.

c.

d.

e.

f.

g.

h.

7. Label each of the learning outcomes as:

E = Educational Goals I = Instructional Objectives
(Criteria = 80%)

_____ 1. The student will grasp the significance of the Treaty of Versailles.

_____ 2. The student will have an attitude favorable to English.

_____ 3. The student will know six verbs.

_____ 4. The student will learn the names of the common tools in wood shop.

_____ 5. The student will list three major causes of the Civil War on the chalkboard.

_____ 6. The student will know the important battles of World War I.

_____ 7. The student will prefer cooking to sewing.

_____ 8. The student will be able to correctly thread a sewing machine.

_____ 9. The student will look as the teacher demonstrates the use of the lathe.

_____10. The student will be able to develop a sense of the cultural unity of man.

_____11. The student will list and describe the themes of four of Shelley's poems.

_____12. The child will develop interest in leisure sports.

_____13. The student will develop interest in the desire to learn more history.

_____14. The student will describe with understanding five concepts treated in the text.

_____15. The student will correctly solve all of the story problems presented.

_____16. The student will accurately learn the best known works of Voltaire.

_____17. The student will solve algebra problems correctly.

_____18. The student will appreciate the key importance of algebraic approaches.

_____19. The student will include 10 supporting facts in a written persuasive paragraph.

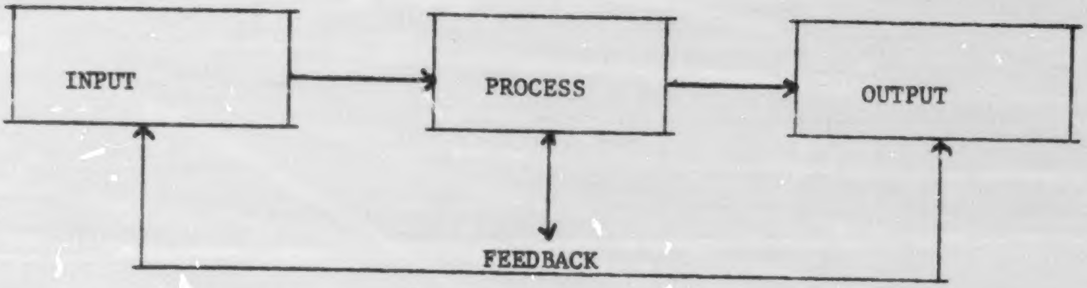
_____20. The student will become familiar with how to write an essay using no reference but personal experience.

Go to the next page and check your answers.

POST-TEST

(Answers)

1.



2. Natural System:
   a. Rivers of the U. S.
   b. Mountains of the U. S.
   c. Any Animal
   d. Any Plant
   e. Ocean
   f. Solar System, etc.

3. Synthetic Systems:
   a. Interstate highways
   b. Bell Telephone System
   c. Irrigation Ditches
   d. Municipal of Federal Government
   e. Automobiles
   f. Airplanes, etc.

4. Input
   1. Educational goals
   2. Students
   3. Recources —Financial and Human
   4. State and National regulations
   5. Needs of society
   6. Individual needs, etc.

Process
1. Teaching methods
2. Teacher - student interaction
3. Teacher - Material interaction
4. Student - Material interaction
5. Sequence of contents, etc.

5. Output
   1. Communication skills
   2. Citizenship
   3. Vocational skills
   4. Physical health
   5. Worthy use of leisure time
   6. etc.

6. Definitions
   a. Behavioral objective —Performance goal of the learner.
   b. Contents —Subject matter to be covered.
   c. Entry behavior — Prerequisite behavior of learner.
   d. Pre-Assessment — evaluation of the terminal behavior of learner prior to instruction.
   e. Instructional Procedures — Methods materials and strategies used by the teacher to reach objectives.
   f. Performance assessment — evaluation of terminal behavior following instruction.
   g. Feedback loops — means of data collection and recycling student who fail to reach the criteria.
   h. Entry and Exit points —Points where the students may start and stop the module respectively.

7. Educational goals are:
   1, 2, 3, 4, 6, 7, 10, 12, 13, 16, 18, & 20

   Instructional Objectives are:
   5, 8, 9, 11, 14, 15, 17, & 19

IF	THEN
You met the criteria in all questions	Excellent! You are now ready for Module II in the cluster.

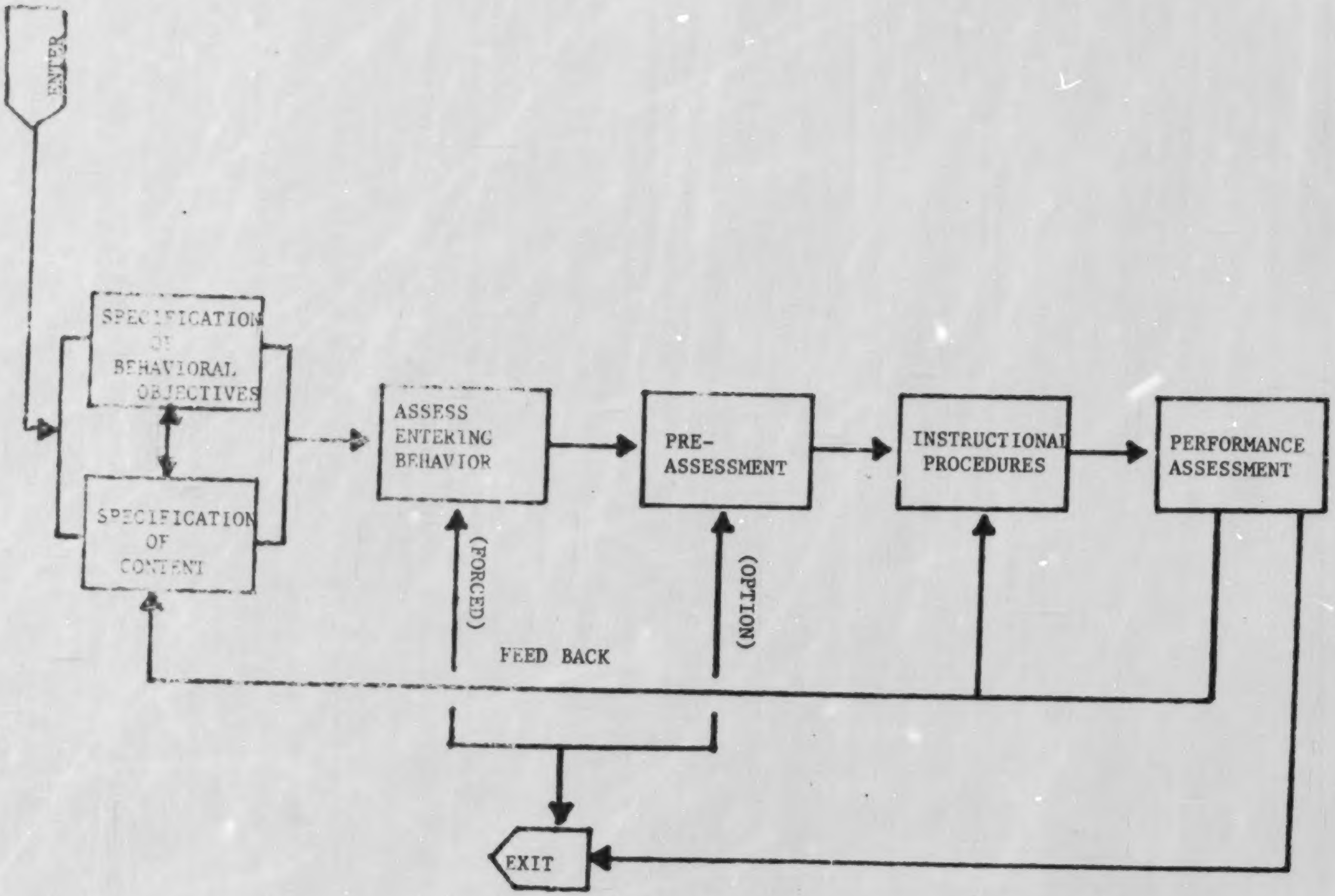
REMEDIATION

You Missed -- Test Item	Test Item
1. Any one answer in # 1	1. Review slides 4 - 27; then correct your answer
2. Listing five examples in # 2	2. Review slides 10-18; then correct your answer
3. Listing five examples in # 2	3. Review slides 19-27; then correct your answers
4. Listing three example of each component in # 4	4. Review slides 22-28; then correct your answers
5. Any one component part in the teaching model	5. Review slides 63-70; then correct your answers
6. More than one of the definition	6. Go to page 26 of your work and study them
7. More than four of the questions	7. Read pages 8 and 9 in your workbook; then correct your answers

You failed to meet the criteria in one or more of the Post-Test items and have done the remediation on those items

Good. You have now met the prerequisites for the second module in this cluster.

See your instructor for Module # 2.


ENTER
SPECIFICATION OF BEHAVIORAL OBJECTIVES
SPECIFICATION OF CONTENT
ASSESS ENTERING BEHAVIOR
PRE-ASSESSMENT
INSTRUCTIONAL PROCEDURES
PERFORMANCE ASSESSMENT
(FORCED)
(OPTION)
FEED BACK
EXIT

APPENDIX G

INSTRUCTIONAL MODULES DEVELOPED BY FIFTH CYCLE TEACHER CORPS INTERN

Module I

Objective: The student will demonstrate his knowledge of the Dolch Basic Sight Words (lines 15 - 17) by writing at least eight out of twelve during class without the use of his word list.

Prerequisite: Students must have the ability to recognize and spell the words in lines 1 - 14 of the Dolch word list.

Pre-Test: Child's ability to read words from list (Lines 1 - 17.)

Remediation:

1. Each student will read word list (lines 1 - 14) and make simple sentences of some of the words.
2. In the event some words are action words, they will demonstrate the action.
3. Have a spelling bee on lines 1 - 14.

Instructional Activities:

1. Pronounce words and spell them aloud, in a group.
2. Each child will pronounce words individually.
3. As a group game, we will make sentences on the blackboard using the Dolch words in lines 15 - 17.
4. Ask various students to spell certain words from the list and use them in a sentence.

Post-Test: Students will write words as they are called to them by the teacher.

Remediation: Make a cross-word puzzle of the words and let the child solve the puzzle independently.

Module II

Objective: The students will demonstrate their knowledge of capital letters, sentence structure, and relate orally some of their observations or experiences.

Prerequisite:

1. Knowledge of simple sentences.

2. Knowledge of punctuation.

3. Ability to write some form of simple sentences.

Pre-Test:

1. Look at picture and write three sentences about things seen in the picture.

2. Use punctuation marks where they are needed in these sentences.

3. Use capital letters where they are needed in sentence structures.

Remediation: (If needed) Teach students rules for capital letters. Write sentences related to observation and experiences (field trips).

Instructional Activities: Use pictorial cards of animals, landscapes, activities of birds or animals, for example: landscape containing snow, birds in activities, animal gracing, lake of water with boat riding, and picnicking. The student will observe pictures like these and write three to five sentences after oral discussion about things they see in pictures.

Post-Test: Post-test may be done orally or as a written exercise on the chalkboard or with use of mimeographed sheets.

Remediation: Reteach beginning with capitalization and writing of simple sentences.

Module III

Objective: Student will demonstrate his ability to recognize written words by verbally identifying fifteen words out of twenty correctly.

Prerequisite: Knowledge of alphabets and beginning sounds.

Pre-Test: Identify words; let child post flash card into pocket chart and identify word to teacher.

Test Words

With	Who	Policemen	Can	Can't
Ride	And	The	Mike	Mary

Jeff (Red, Yellow, Blue, Green, and Color Words)

Remediation:

Orally:

1. Let a child (a proficient one) quiz another on all 26 alphabets.
2. Pass-out (individually) pictures with alternative P sounds, W sounds, etc., with other beginning sound pictures they are not familiar with.
3. Give magazines to children and make a W chart (or any). Find W sounds pictures and cut out and paste.
4. Cut a square of newspaper print, instruct them to circle all W's found in newspaper.

Instructional Activities:

1. All activities included in remediation plus the following.
2. For individual seat work: Give child three or more different alphabet sounds. (At all times a child who is proficient can assist the other child.)
3. Let children demonstrate the word they are learning: Example, Ride - Through - - Play - Acting, and have children guess what is being performed in relation to word.
4. In Tablet: Let child print word in tablet (which will enable him to recognize alphabets which make up the word).
5. Teacher will write on blackboard (providing child knows all words used in sentence). Example: Mike and Jeff ride--then draw and color a picture of Mike and Jeff.

Post-Test: Verbally identify fifteen words out of twenty words correctly.

Remediation:

1. Teach the song ABC.
2. Teach sound of alphabets through animal sounds, city sounds, etc.

3. Draw a picture to accompany particular alphabet sound.

4. As ABC song is sung, place ABC's cards on floor, let them step on letters.

Module IV

Objective: Students will demonstrate their knowledge of electricity by being able to classify 18 out of 20 objects as being either conductors or insulators of electricity without any outside help.

Prerequisite: Students must know what conductors and insulators are in relation to electricity.

Remediation:

1. Show a filmstrip explaining conductors and insulators.

2. Use dictionaries to define these two terms.

Pre-Test: Entering behavior is assessed by verbal discussion of what conductors do and how insulators effect the flow of electricity.

Instructional Activities:

1. Read section in textbook and outside materials of conductors and insulators.

2. Perform experiments on electricity testing different materials in classroom to see if they are conductors or insulators of electricity.
    a. If the light lights up after some type of material (pencil, paper, copper wire, jewelry and what else the student would like to try) has been connected at points A and B that material is classified as a conductor.
    b. If the light does not come on after following the same procedure in (a), the material is classified as an insulator.

Post-Test: Actual classification of different materials.

paper
bracelet (Radhuim electoplate)

board clip
scissors

pin of glass
pencil
ballpoint
paperclip
wooden peg
piece of yarn
art eraser
hard rubber rod
ear-ring
plastic knitting needle
a glass
rubber band
6 penny nail
silk thread
nickle plated ring
plastic ruler

Remediation:

1. Discussion of what a conductor of electricity is and what insulators are.

2. Explain why some materials (because of their composition) will conduct electricity and some will not.

3. Perform more experiments in classifying materials as either conductors or insulators.

Module V

Objective: Student will demonstrate his knowledge of the basic facts of regrouping two digits in addition and subtraction not involving "zeroes" by being able to solve 8 out of 10 problems without making marks or lines for counting within the regular class period.

Pre-Test: Written test which includes regrouping of two digits addition and subtraction problems and one and two digit problems not involving regrouping.

Instructional Activity: Each child to complete these activities at their own rate.

1. Use concrete materials such as rods, beans, etc. The child will use the objects in counting and grouping different members in the three different places.

2. Drill of basic one digit addition and subtraction facts by memory without regrouping. (Verbal and written)

3. Use of games involving addition and subtraction that is both verbal and written. Such as math puzzles for adding and subtraction.

4. Use of written work using symbols--making use of regrouping in both addition and subtraction.

a. Writing math headlines, that will have students to make up problems of their own using, both one digit and two digitd, regrouping in addition and subtraction.

b. Write questions to problems of addition and subtraction, then answering their questions using one and two digits and regrouping.

Post-Test: Regrouping of two digits addition and subtraction problems.

Remediation: Learning how to count with concrete objects and grouping objects according to sequence--Learning the Place Value of Numbers--(1, 10, 100).

Pre-Test:

$$\begin{array}{rrrrrr} 4 & 2 & 23 & 12 & 48 & 77 \\ +4 & +2 & +23 & +12 & +48 & +77 \\ \hline \end{array}$$

$$\begin{array}{rrrrrr} 7 & 9 & 53 & 48 & 43 & 61 \\ -5 & -7 & -12 & -16 & -14 & -25 \\ \hline \end{array}$$

Post-Test:

$$\begin{array}{rrrrr} 8 & 9 & 48 & 75 & 36 \\ +9 & +9 & +56 & +28 & +49 \\ \hline \end{array}$$

$$\begin{array}{rrrrr} 10 & 17 & 48 & 56 & 72 \\ -9 & -8 & -39 & -48 & -13 \\ \hline \end{array}$$

Module VI

Objective: The student will demonstrate his ability to write a news article of front page magnitude by writing a report of an event according to previously discussed criteria for news writing. This will be done individually in the classroom without aids other than those in his head once the instructor has started him off. Spelling and grammar will not take precedence over factual accuracy and form according to previously discussed criteria. No time limit

Prerequisite: Ability to "see" (observe), to communicate by writing.

Pre-Test: The student will write a short story on something that occurred during his past life.

Remediation: If child cannot construct intelligible sentences, work on sentence construction. Verbs, conjunction, etc. --whatever is missing.

Instructional Activities:

1. Study parts of newspaper--contrast them.
2. Discuss difference between newspaper writing and short stories.
3. Discuss form of front page of newspaper.
4. Of article itself--How to write headlines, how to write lead sentences, what a dateline is, what is cutline, the purpose of pictures, the differences between facts and opinions.
5. From a newspaper article which appeals to the student, he will relay its information to the class orally. The class will analyze if and how it answers the six basic questions.
6. The child will write as many fictional news articles as he likes (making up events, etc.).
7. The students can look at each other's articles for a view of a variety of subjects to be seen in newspapers.
8. If desirable, students can study proof-reading by:
    a. as a class collaborating on various proof-readings of their own articles:
    b. as individuals, doing exercises from English book on proof-reading for punctuation, logic, capitalization, comprehensibility;
    c. in small groups, discussing classmate's articles.
9. Given a camera and one shot, students can go shoot a picture and then write an article around it.
10. Given various thought-provoking pictures, the students will choose one and write a story around what can be observed in the picture (he can interpret details in his own way).

Post-Test: Murray will write a play centering around the kidnapping of Nixon, choose actors and organize it in utter secrecy. During their study hall, without warning, the rest of the class will become observers of the event, when it is over, the objective will be explained. If they have questions or wish to have a re-run, this can be arranged. To start them off, brief descriptions of what they saw can be given by some of the "witnesses." Or, if necessary, they can as a class discuss a good headline. If they are still insecure, discuss the lead sentence. From there, they are on their own.

Remediation: None necessary unless all or a majority of the children write utterly imcompetent articles, which they will not (knowing students). If they by some chance do, then we'll drop it and go on to something else, such as myths, before coming back from a less deep angle.

Module VII

Objective: After having received the sentence-making exercise(s) the children will be expected to demonstrate their knowledge of verb conjugation. Students will demonstrate knowledge of the verbs was and were. Children will be given a list of sentences from which they will select the correct verb. (Verb to be) Children will not utilize notes and will be expected to accurately complete 15 of 20 sentences.

Prerequisite: Translated knowledge of the verb to be (Estar). Knowledge of pronouns (I, they, we, he, it, you, etc.).

Pre-Test: Test written in Spanish--verbs to be translated to English.

El estava ______________
Ellos estavan ______________
Nosotios estavamos ______________
Ella estava ______________
Yo estava ______________

Instructional Activities:

1. Present mimeograph sheet with translations.
2. Teacher to read translations--aloud.
3. Have children read and translate phrases.
4. Pick Spanish phrases at random, ask children to read English translation.

5. Ask children to exchange phrases among themselves.

6. Prepare sentences utilizing these verbs--was and were.

7. Review sentences--emphasis on accuracy.

8. Reinforce the verb--to be.

Post-Test: To facilitate reading and comprehension I will write test with sentences almost identical to previously prepared sentences.
Example:

Yesterday______________________(yo estava) absent.

Remediation: Review pronouns.

El --- He
Ellos --- They
Yo --- I

Module VIII

Objective: The student will demonstrate his understanding of the #8 by drawing a set of 8 on a piece of paper without the aid of his teacher or of other students in the classroom. 100% accuracy.

Prerequisite: Ability to count to 7; ability to count up to 7 subjects; ability to draw up to 7 objects.

Pre-Test: Draw 7 boxes on your paper by yourself or construct a set of 7 on your individual flannel board.

Remediation: Students will practice counting to seven with the use of 6" x 8" cards which have numbers one through seven.

Games:

1. Teacher throws cards all over room. Students put cards back in sequential order.

2. Students hide their eyes. One student mixes cards, another student then re-establishes the sequential order.

3. Students hide their eyes. Teacher hides cards around the room. Students are designated to find a specific number and to re-establish sequential order.

4. Teacher will write numbers from one to seven. She will make deliberate errors and allow students to correct errors.

Instructional Activities:

1. Clap to #8.
2. Count various concrete sets of eight in classroom not on paper (count boys, girls, chairs, chalk, erasers, books, cards, window, etc.).
3. Students will count set of 8 which are on paper distinguishing sets of 8 from a set of another number by circling sets of 8.
4. Students will form sets of 8 on flannel board.
5. Students will bring sets of 8 objects from their own home.

Post-Test: Student will draw a set of eight. This set may be eight objects, eight dots, or eight words or the student may make a creative drawing using the concept of eight such as an eight-armed man or an eight-eyed monster.

Remediation: Those students who cannot draw 8 objects or a picture demonstarting the idea of 8 will: (1) play a game in which the teacher sells various objects for 8 popsicle sticks. In order to get the object, the student must be able to count out 8 sticks to the teacher; (2) form sets of eight on pegboard; and (3) form sets of eight blocks.